

4.0.0. CHAPTER FOUR

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4.1.0. INTRODUCTION

In order to test the various hypotheses proposed in the present study, three separate statistical analyses namely, Canonical, Stepwise Discriminant Function Analysis and Cluster Analyses were performed on the data generated from 400 respondents.

All the three analyses were performed using 'Statistical Package for Social Sciences' computer programme. Each analysis prior to performing the equations carried out certain prerequisite analysis on the data for their normality, linearity and other tests. The results of the prerequisite tests and the findings of each analysis is presented below.

4.2.0. CANONICAL ANALYSIS

The Canonical analyses were performed with the use of SPSS (Statistical Package for Social Sciences). Since two separate measures were obtained for Criterion measures namely (1) The Frequency of product purchase and (2) the Likelihood of product purchase, two Canonical analyses were performed between the sets of Predictor variables and Criterion variables.

The results of both the analyses are presented and discussed below. The set of Predictor variables comprised of Personality (Compliance, Aggression, Detachment, Sociability,^o Relaxed, and Internal Control), Motivation (Achievement, Power, Control, Dependence, Extension, and Affiliation), Perceptual attributes (Ability, Effort, Task difficulty, and Luck), and Demographic variables (Sex and Tenure in hostel). The Criterion variables comprised of product purchase measures of 18 products (Biscuits, Bodyache remedies, Chocolates, Complexion aids, Cosmetics, Fashion adoption, Fast food, Health food, Perfume, Ready-made garments, Toilet soap, Soft drinks, Shampoo, Talcum powder, Tooth paste and (Vitamins).

The first Canonical analysis was performed between the sets of 18 Predictor variables and a Criterion measure of Frequency of product purchase for the 18 product variables. The second Canonical analysis was performed between the sets of 18 Predictor variables and a Criterion variable measured in terms of the Likelihood of purchase behaviour for the same 18 product variables.

4.2.1. Canonical analysis between Predictor variables and Frequency measure of Criterion variable.

Of the 400 cases entered into the analysis all the 400 cases were accepted. No datum was missing on these variables among the 400 cases. The result on the Bartlett Test of Sphericity to test the hypothesis that the population Correlation matrix was an identity matrix, indicated that the observed significance level was small (less than .000) and hence the hypothesis that the population Correlation matrix was an identity matrix was rejected. The determinant was .02160, indicating that one or more of variables can almost be expressed as a linear function of the other dependent variables. Thus the hypothesis that the variables were independent was rejected.

Similarly the multivariate test of significance of Pillais, Hotellings and Wilks Tests for testing the null hypothesis that the population means do not differ from the hypothesised constants was rejected as the observed significance was less than 0.000 level. Having done the basic statistical analysis the data were then used for computing the Canonical Correlation.

The Canonical analysis produced 18 Canonical Variates (Roots) accounting for 100 percent variance. The first Canonical Correlation was .61 (37% of variance) the second was .42 (18% variance) the third was .35 (12 % variance) the fourth was .32 (10% variance) and the fifth was . 0 (9% variance). Thus the first five Correlations alone accounted for 86% variance and the rest of the 13 Correlations accounted for only 14% of the variance.

With all the 18 Canonical Correlations included, F was significant at 0.0000 level and with the first Canonical Correlation removed, the F test was not statistically significant. Thus the first Canonical Correlation was considered for discussion as it accounted for the significant linkages between the two sets of variables. However along with the first Canonical Correlation the other two Roots (Correlations) and the Coefficients are presented below in Table 4.2.1.

Table 4.2.1. Showing Correlations, Canonical Correlations Standardized Canonical Coefficients, Percent of Variance and Redundancies between Predictor variables, Frequency of purchase variables and their corresponding Canonical Variates for the first three Variates.

Variables	Correlations			Coefficients		
	Roots			Roots		
	1	2	3	1	2	3
Predictor Set						
Compliance	-.00	.58	-.44	-.00	.46	-.46
Aggression	-.11	.18	.17	.03	.03	.20
Detachment	-.10	.00	-.27	-.10	-.10	-.30
Sociable	.10	.55	.33	.14	.27	.49
Relaxed	-.11	-.03	.05	.04	-.22	-.08
Int. control	-.07	.15	.13	-.01	-.11	.00
Luck	-.10	.03	.00	-.00	.56	.12
Task	.00	-.14	.00	.09	.34	.15
Ability	-.03	-.27	.03	.15	.15	.04
Effort	.12	.37	.02	.17	.62	.18
Achievement	-.08	.57	.18	.04	.57	.13
Power	-.16	.10	-.36	-.20	-.03	-.31
Control	-.08	.16	-.21	-.01	-.01	-.21
Dependence	-.11	.12	.53	-.18	-.03	.56
Extension	.12	.29	-.05	.00	.12	-.26
Affiliation	.06	.33	-.03	.00	.13	-.21
Sex	.93	-.07	-.08	.98	-.08	-.02
Hostel	-.05	-.11	.07	.08	-.15	.05
% Variance	5.74	8.52	5.24			
Redundancy	4.06	1.13	0.97			
Criterion Set						
Biscuits	.27	.68	.03	.16	.66	.07
Body ache	-.09	-.06	.08	-.27	.11	.08
Chocolates	.19	.37	-.06	.02	.07	-.23
Compl. Aids	.32	.02	.21	.02	.10	-.18
Cosmetics	.41	-.17	.47	.09	-.37	.29
Fashion Adop.	.40	.02	.57	.22	-.12	.42
Fast-food	.37	.02	.11	.23	-.11	-.22
Hair oil	-.07	.10	.49	-.10	.06	.56
Headache rem.	.06	-.33	.08	.03	-.42	.00
Health food	.20	.10	.08	-.01	.11	-.06
Perfume	.35	.13	.40	.03	.11	.16
Ready-made gar.	.03	.36	.46	-.24	.46	.33
Toilet soap	-.07	.32	-.06	-.12	.21	-.19
Soft drinks	-.23	.06	.34	-.10	-.06	.41
Shampoo	.74	.16	-.06	.60	.09	-.26
Talcum powder	.58	.10	.11	.24	.06	-.05
Tooth paste	-.18	.21	-.08	-.33	.05	-.15
Vitamins	.35	-.12	.03	.27	-.24	-.13
Canonical R	.61	.42	.35			
F	.00	.14	.76			
% Variance	10.97	6.27	7.84			
Redundancy	2.13	1.53	0.65			

Since only the first Canonical Variate is significant ($P < .000$) only the first Variate is interpreted. Though the other Variates are not statistically significant, they are presented mainly to observe the trends emerging thereof.

The first Canonical Correlation was .61 representing 37% overlapping variance between the first pair of Canonical Variates. Thus the first Variate alone accounted for 37% out of a total of 100% variance accounted by all 18 Canonical Variates. Thus the first Canonical Variate extracted 5.74% (total 100%) variance from its own set of variables namely, the Predictor set and 10.97% (total 100%) from the Criterion set. Thus, in the first Canonical Variate, the Predictor set reduced 2.13% (total 100%) of the uncertainty in the Criterion set and while the Criterion set reduced 4.06% (total 8.245) in the Predictor set.

However, the results also indicated that the second Variate had extracted slightly more variance (8.52%) as compared to the first Variate (5.74%) from its own set of Predictor variables. But the second Variate was not statistically significant, hence, the second Variate was interpreted with caution.

With a cut off Correlation of .30 for interpretation, the variables relevant to the first Canonical Variate in the Predictor set was Sex. Among the Criterion variables, in the order of magnitude, Shampoo, Talcum powder, Cosmetics, Fashion Adoption, Fast food, Perfume and Complexion Aids were relevant to the first Canonical Variate. Taken as a pair, the first Canonical Variates indicated that Females (.93) tended to purchase more often than Boys, Shampoo (.74), Talcum powder (.58), Cosmetics (.41), Fashion adoption products (.40), Fast food (.37), Perfume (.35) and Complexion aids (.32).

Thus the first Canonical Variate confirmed the hypothesis (H10) that Female subjects would tend to buy more of Personal Grooming and Socially oriented products than Male subjects.

The first Canonical Variate accounted for only one variable namely, Sex among the Predictor set, but the magnitude was so large (.93), that it alone accounted for more than 86% of variance. Hence, further Canonical analyses were performed taking into account of the subsets (Personality, Perceptual and Motivational sets) to explore the relationship between the subsets of the Predictor set and the Criterion set. The results and findings are reported later in this section.

Observation of the other Canonical Variates indicated a certain clear trend. Though these Variates were not statistically significant they are presented and interpreted for exploring the trend they produced.

The second Canonical Variate in the Predictor set comprised of Compliance (.58) Achievement (.57) Sociability (.55) Effort (.37) and Affiliation (.33), while the corresponding Canonical Variate from the Criterion set comprised of Biscuits (.68), Chocolates (.37), Ready-made garments (.36) Not Headache remedies (-.33) and Toilet soap (.32). Taken as a pair these Variates suggested that those who were highly Compliant and Sociable(Personality) who attributed their experiences of success or failure more to Effort (Perceptual) and who were high on Achievement and Affiliation Motivational dimensions tended to purchase Biscuits, Chocolates, Ready-made garments, Toilet soap and not Headache remedies.

Thus the second Canonical Variates confirmed the hypothesis (H3) that highly Compliant and Sociable Personality oriented would tend to be the most Frequent purchasers of Socially oriented products. Similarly, the findings also confirmed the hypothesis (H6), that persons with high Affiliation oriented Motivational dimensions would tend to purchase more Frequently Socially oriented products.

Further the results also confirmed the hypothesis (H8) that the Frequency of purchasing more of Health products such as Biscuits and Chocolates would be highly and positively influenced by the Perceptual variable Effort. The findings also indicated that those individuals who purchase more frequently only the Health products did not purchase Medicinal products, thus indicating that the Medicinal products possibly were perceived different from the Health oriented products.

Though the second Canonical Root confirmed many of the proposed hypotheses it has to be viewed only as explanatory indications for want of statistical significance.

The third Canonical Variate indicated that those who were more Dependent (.53) Sociability (dominant Motivational patterns tended to purchase most frequently all the Socially oriented products. However, the results of this Variate has to be taken as a trend and not as a statistical inference.

Thus, the Canonical analysis between the Predictor set of variables and the Criterion set comprised of the Frequency measures of 18 products yielded only one Canonical Variate as statistically significant.

The first Canonical Variate taken as a pair confirmed the hypothesis (H10) that Girl subjects would tend to buy more of Personal Care/Grooming and Socially oriented products than Boys. The other Variates though not statistically significant, they indicated the trend confirming three other hypotheses (H3, H6 & H8).

4.2.2. Canonical analysis between Predictor variables and the Criterion set of Likelihood of purchase measures.

Of the 400 cases entered, 394 cases were accepted for the analysis and 6 cases were rejected because of missing data. Hence the Canonical Correlational analysis was based on the 394 cases.

Initial statistics carried out on the data indicated that the hypothesis that the population Correlation matrix is an identity matrix was rejected based on the results of Bartlett's Test of Sphericity ($P < .000$). Secondly the hypothesis that the variables were independent was also rejected as the determinant was .00105 ($P < .00$) and finally Pillais, Hotteling's and Wilks Multivariate test of significance rejected the null hypothesis that the population means do not differ from the hypothesised constants as the observed significance was less than .000 level.

Having examined the data for various hypothesis, the data then were analysed to calculate the Canonical Correlations. The Canonical correlational analysis produced 18 Canonical Variates (Roots) accounting for 100% variance.

The first Canonical Correlation was .53 (29% variance), the second was .40 (16% variance), the third was .39 (15% variance), the fourth was .33 (11% variance) and the fifth was .31 (10% variance). Thus the first five Correlations alone accounted for 81% of variance while the rest of 13 Canonical Variates accounted for only 19% of variance.

With all the 18 Canonical Correlations included, F was significant at .000 level, and with the first Canonical Correlation removed the F was significant at .096 level. With the first two Canonical Correlations removed and the subsequent F tests were not statistically significant. The first Canonical Correlation, therefore accounted for the single most significant linkage between the two sets of variables. Though the second Canonical Correlation was significant it was only at .10 level, hence it would be interpreted with more caution. Besides the first two Correlations the third Root is also shown in the table below for understanding the nature of trend they produced.

Table 4.2.2. Showing Standardized Canonical Correlations between Predictor variables, Likelihood of purchase measures and their corresponding Canonical Variates.

Predictor	Correlations Roots			Coefficients Roots		
	1	2	3	1	2	3
Predictor Set						
Compliance	-.00	.49	.34	.01	.38	.33
Aggression	.03	-.06	-.01	-.13	-.17	.04
Detachment	-.00	.02	.10	.00	.04	.11
Sociability	-.03	.41	-.49	-.07	.04	-.58
Relaxed	.08	-.08	.14	-.10	-.36	.23
Int. control	.03	.19	-.02	-.05	.06	.00
Luck	.13	-.22	-.11	.22	.40	.04
Task	-.13	.02	.30	-.04	.50	.31
Ability	.50	.08	-.34	.06	.42	-.16
Effort	-.01	.34	.14	.11	.61	.22
Achievement	.09	.26	-.13	-.00	.17	-.11
Power	.05	.27	.18	.07	.12	.25
Control	.14	-.41	-.26	.02	.22	-.21
Dependence	.16	.04	.20	.23	-.12	.20
Extension	-.15	.23	.09	-.05	.16	.21
Affiliation	.03	.70	-.08	.05	.63	.00
Sex	-.94	.03	.05	-.98	.00	-.08
Hostel	.08	.00	-.46	-.06	-.03	-.47
% Variance	5.70	8.30	5.61			
Redundancy	2.04	1.06	0.94			
Criterion						
Biscuits	-.11	-.51	.33	-.07	.48	.38
Body ache	.18	-.19	.30	.36	-.35	.02
Chocolates	-.17	.12	.11	-.04	-.11	.14
Compl. Aids	-.36	-.20	.15	-.26	.12	.41
Cosmetics	-.35	-.27	-.15	-.04	-.28	-.11
Fashion Adop.	-.13	-.16	-.25	-.01	-.15	-.23
Fast-food	-.16	.22	-.16	-.14	.07	.07
Hair oil	.23	-.20	-.12	.27	-.28	-.09
Headache rem.	.01	-.24	.32	-.09	-.28	.39
Health food	-.10	.23	.16	-.08	.28	.33
Perfume	-.26	-.18	-.45	-.00	-.07	-.47
Ready-made gar	.12	-.19	-.18	.49	-.19	.24
Toilet soap	.22	.47	-.11	.13	.51	.24
Soft drinks	-.13	.29	-.36	.16	.21	-.42
Shampoo	-.59	-.02	-.28	-.66	-.27	-.41
Talcum powder	-.47	.19	-.26	-.28	.28	.05
Tooth paste	.31	.34	-.31	.34	.12	-.53
Vitamins	-.16	.11	-.12	-.10	.07	-.25
Can cor.	.53	.40	.39			
F	.000	.09	.51			
% Variance	7.14	6.50	6.35			
Redundancy	1.62	1.34	0.83			

Table 4.2.2. presents the first three pairs of Canonical Variates (Roots). Since only the first two Canonical Variates were significant they are interpreted, though the third being not statistically significant it is also presented and analysed for exploring the trend it has produced.

The first Canonical Correlations was .53 representing 29% overlapping variance between the first pair of Canonical Variates. The second Canonical Correlation was .40, representing 16% overlapping variance between the second pair of Canonical Variates. Although the first Canonical Correlation was highly significant it did not represent a substantial relationship.

The first Canonical Variate extracted 5.70% of variance from its own set of variables, while the second Canonical Variate extracted 8.30% of variance. Together the two Canonical Variates accounted for 14.00% of variance whereas the first five Canonical Variates accounted for 30.33% of the total of 100% of variance in the Predictor set.

Similarly, the first Canonical Variate extracted 7.14% and the second Variate 6.50% of the variances from the second set of variates. Together the two Canonical Variates accounted for 13.64% of variance, while the first five Canonical Variates accounted for only

33.54% of variance of the total of 100% variance.

The first Predictor set Variate reduced 1.62% of uncertainty in the Criterion variables while the second Predictor Variate reduced 1.34% of the uncertainty. Together, the first two Predictor set Variates "explained" 2.04% of the variance in the Criterion set. Similarly, the first Criterion set Variate reduced 2.04% and the second 1.06% of the variance in the Predictor set. Together the Criterion set Variates overlapping the variance in the Predictor set by 3.10%.

Total Percent of Variance and total Redundancy indicated that the Canonical analysis was more efficient for the second set of variates, but the size of the Correlation indicated that the second pair of Variates should be interpreted more cautiously.

With a cut off correlation of .30 for interpretations, the variables relevant to the first Canonical Variate in the Predictor was Sex. Among the Criterion variables, in order of magnitude, Shampoo, Talcum powder, Complexion aids, Cosmetics and not Tooth paste. Taken as a pair, the first Canonical Variate indicated that Females (-.94) would be most the Likely purchasers of Shampoo (-.59) Talcum powder (-.47) Complexion aids (-.36) Cosmetics (-.35) and not Tooth paste (.31).

The first Canonical Variate thus confirmed the proposed hypothesis (H10) that Female respondents would be the most Likely buyers of Personal Grooming and Socially oriented products than Boys. Among the variables of the Predictor set Variate of the first Canonical Variate, the Correlation of Sex and the Variate was so large (-.94), that no other variable had a Correlation above .16. Hence further Canonical Analyses were performed between the subsets of Predictor variables and the Criterion set of Likelihood measure, which are presented later in this section.

The second Canonical Variate in the Criterion set comprised of Affiliation, Compliance, Sociability, Control and Effort. The corresponding Canonical Variate from the Criterion set comprised of Biscuits, Toilet soap and Tooth paste. Taken as a pair, these Variates suggested that a combination of dominant Affiliation and Control Motivation oriented individuals who were highly Compliant and Sociable and who attributed their experiences of success or failure to own Effort would be more Likely to buy Biscuits, Toothpaste and Toilet soap.

Thus the results indicated a very interesting trend. Though the products, Toilet Soap and Tooth Paste were classified as the Personal Grooming/Care products, it appeared that the one segment of the respondents tended to view the products' with relation to their projected appeal and hence have perceived to serve the interpersonal needs, therefore taken as Socially oriented products. On the other hand the another segment of the respondents viewing them as medicated products and therefore used for more medicinal purpose.

Thus the results confirmed the hypothesis (H8 and H3) that high Effort dominant attribution oriented individuals would be the most Likely purchasers of Medicinal/Health products. and indirectly confirming that those individuals with high Sociability and Compliance would tend to be the most Likely purchasers of those products having the interpersonal appeals or having Social relevance. (H3)

However the results and the findings have to be viewed with caution since the Canonical Correlation for the second Variate was significant only at .09 level.

While the third Canonical Variate indicated that those who were Compliant (.34) not Sociable (-.49), and did not attribute success or failure more to Ability (-.34) with lesser Tenure in the hostel (-.46) would be more Likely to buy Biscuits (.33) Bodyache remedies (.30) Headache remedies (.32) and not Perfume, Soft drinks and Tooth paste. The findings of the third Canonical Variate was in line with the proposed hypothesis (H2) that individuals with low Sociability and Compliance would tend to be the most Likely purchasers of Medicinal/Health products.

Thus the second and third Canonical Variates differentiated two different Likelihood purchasers, the second Variate dealt with more of Socially oriented while the third Variate indicated the Health/medicinal products.

Thus the Canonical analysis between the Predictor set of variables and the Criterion set of Likelihood of purchase variables yielded 18 Canonical Variates. Of which only two were found significant and the second Root was significant only at 0.09 level. Hence, only the first Canonical Variate was interpreted and the first Variate confirmed the proposed hypothesis (H3) that girl subjects would be the more Likely purchasers of socially oriented products.

Though the other Variates indicated a certain pattern among the predictor and Likelihood of purchase of products, they confirmed the hypothesis proposed (H3 and H8) but they were not statistically significant.

Since both the Canonical analyses 1. Predictor set and the Frequency of purchase and 2. Predictor set and Likelihood of purchase yielded only one Canonical Variate as a statistically significant one and confirming only one of the proposed hypothesis, the present study explored into further analyses thereby breaking the entire Predictor set into three subsets namely (i) Personality (ii) Perceptual and (iii) Motivational variables and each Predictor subset entering into the Canonical analysis with the Criterion sets. Since, there were Two Criterion sets (Frequency and Likelihood measures) and 3 Predictor sets (Personality, Perceptual and Motivational variables) a total of 6 other Canonical analyses were performed as shown below.

1. Personality variables and Frequency measures
2. Personality variables and Likelihood measures
3. Perceptual variables and Frequency measures
4. Perceptual variables and Likelihood measures
5. Motivational variables and Frequency measure
6. Motivational variables and Likelihood measures

The results of each of these Canonical Correlational analyses are presented below.

4.2.3.A. Canonical analysis between Personality variables and Criterion variables comprising of Frequency of purchase measures.

Of the 400 cases entered into the analysis all the 400 cases were accepted and no datum was missing in any case Bartlett Test of Sphericity yielded an observed significance level small ($P < .000$) having a determinant close to zero (.01722) and the multivariate test of significance being all significant ($P < .01$) the data was then analysed to compute Canonical Correlations.

The Canonical analysis produced 6 Canonical Variates accounting for a cumulative 100% variance. The first Canonical Correlation was .35 (12% variance). All the other four Canonical Correlations were below .30. With all the Canonical Correlations included the F was significant at .01 level and with the first Canonical Correlation removed the F was not significant ($P < .301$) and the subsequent Roots were also not significant.

Thus only the first Canonical Correlation was considered for discussion as it accounted for a significant linkage between the two sets of variables. The results of the Canonical analysis between Personality variables and Frequency of purchase variables are presented in Table 4.2.1.A.

Table 4.2.3.A. Showing Standardized Canonical Correlations between Personality variables and Frequency of purchase and their corresponding Canonical Variates for the first 3 Roots.

	Correlations			Coefficients		
	Roots			Roots		
	1	2	3	1	2	3
Predictors						
Compliance	-.81	.58	-.03	-.75	.68	.10
Aggression	-.15	-.02	-.01	-.00	-.09	.21
Detachment	.15	.40	-.79	.27	.33	-.84
Sociable	-.63	-.63	-.41	-.50	-.73	-.54
Relaxed	.12	.02	.00	.17	.15	-.09
Int.control	-.19	-.12	.25	-.06	-.04	-.40
% of variance	19.18	15.04	14.45			
Redundancy	.69	.91	.26			
Criterion						
Biscuits	-.63	-.05	-.03	-.63	.03	-.07
Body ache	-.01	-.02	.37	-.18	.01	.49
Chocolates	-.31	-.18	-.12	-.02	-.00	-.03
Complexion aids	-.17	-.08	-.03	-.27	.34	-.18
Cosmetics	.11	-.42	.11	.36	-.11	.25
Fashion Adop.	-.03	-.69	.02	.16	-.53	.06
Fast food	-.17	-.42	-.24	-.12	-.06	-.31
Hair oil	-.01	-.25	-.03	.04	-.21	-.10
Headache rem.	.37	.00	-.05	.54	.09	-.36
Health food	-.03	-.22	.00	.03	-.01	-.08
Perfume	-.05	-.59	-.43	.10	-.41	-.62
Ready-made gar.	-.39	-.51	.00	-.52	-.17	.16
Toilet soap	-.12	-.01	-.24	.05	.06	-.30
Soft Drink	-.02	-.40	.03	.20	-.20	.20
Shampoo	-.23	.00	-.14	-.12	.41	-.11
Talcum powder	-.24	-.31	.04	-.25	-.23	.21
Tooth paste	-.19	.03	-.12	-.17	.13	-.09
Vitamins	-.03	-.21	.48	.04	-.10	.59
% of Variance	5.67	10.79	4.23			
Redundancy	2.33	1.28	0.90			
Canonical R	0.35	0.29	0.25			
Can.R squared	0.12	0.80	0.06			
F Sig.	0.01	0.30	0.72			

As seen in the Table above, since only the first Canonical Variate is statistically significant, only the first Variate is to be interpreted. The first Canonical Correlation was .35, representing 14% overlapping variance between the first pair of Variates. Although the Canonical Correlation was highly significant ($p < .01$) the relationship was not really substantial (14% variance). The first Canonical Variate extracted 19.18% from its own set (Personality variables). Similarly the first Canonical Variate extracted 5.67% of variance in the Criterion variables. The first Personality Variate reduced 2.33% of the uncertainty in the Criterion variables while the Criterion set reduced .69% of variance in the Personality set.

With a cut off Correlation of .30 for interpretation the variables relevant to the first Canonical Variate in the Personality set were, in order of magnitude Compliance and Sociability. Among the Frequency of purchase variables are Biscuits, Perfume, not Headache remedies and Chocolates. Taken as a pair the first Canonical Variate indicated that highly Compliant (-.81) and Sociability (-.63) Temperament oriented tended to purchase Biscuits (-.63) Ready-made Garments (-.39) not Headache remedies (.37) and Chocolates (-.31).

The findings of the first Canonical Variate confirmed part of the hypothesis (H3) that highly Sociable and Compliant people would tend to buy more of Socially oriented products and not Health/medicinal products such as Headache remedies.

4.2.3.B. Canonical Analysis between Personality variables and Likelihood of purchase variables.

On the other hand, the Canonical analysis between Personality and Likelihood of purchase variables, when analysed for sphericity and multivariate analysis of significance, the result indicated that Bartlett's Test of Sphericity was significant ($P < .000$) and the determinant was close to zero (.00100), but it was not found to be significant when the multivariate test of significance was used for testing the null hypothesis that the population means do not differ from the hypothesised constant. Of the 400 cases 394 entered into the analysis for computing Canonical Correlations (6 cases were rejected because of missing data).

The Canonical analysis produced 6 Canonical Roots and only the first Root had a Canonical Correlation of .32 (10% variance). With all the 6 Canonical correlations included the F was not significant ($P < .139$) and thus not a single Canonical Variate was statistically significant. However, the results obtained are presented in Table 4.2.3.B.

Table 4.2.3.B. Showing Standardized Canonical Coefficients between Personality and Likelihood of purchase variables and their corresponding Canonical Variates for the first three Roots.

	Correlation Roots			Coefficients Roots		
	1	2	3	1	2	3
Predictors						
Compliance	-.03	.97	-.13	.07	1.01	-.01
Aggression	-.08	.08	.34	-.02	-.02	.52
Detachment	.41	-.04	-.64	.43	-.16	-.72
Sociability	-.79	.01	-.36	-.87	-.96	-.32
Relaxed	.33	-.11	.07	.39	-.09	.28
Int.control	.01	.04	.46	.10	0.03	-.48
% of variance	15.27	16.00	14.80			
Redundancy	1.13	0.35	0.29			
Criterion						
Biscuits	-.12	.60	-.28	.01	0.60	-.26
Bodyache	.26	.13	.09	.00	-.11	.32
Chocolates	-.10	.17	-.14	.25	-.08	-.15
Complexion Aids	-.11	.13	.32	.01	0.44	.12
Cosmetics	-.22	-.11	.37	.15	-.09	.32
Fashion adop.	-.54	-.19	.34	-.39	-.35	.08
Fast food	-.49	-.08	-.07	-.31	-.00	.02
Hair oil	-.10	-.11	-.05	.06	-.23	-.00
Headache rem.	.47	.00	-.01	.70	-.07	-.07
Health food	-.20	.08	-.00	-.06	0.05	.09
Perfume	-.39	-.43	.02	-.10	-.69	-.53
Ready-made gar.	-.43	-.01	.53	.00	0.36	.78
Toilet soap	-.22	.24	-.26	.05	0.39	-.22
Soft drinks	-.45	.11	-.25	-.25	0.03	-.30
Shampoo	-.32	-.09	-.06	.09	-.31	-.28
Talcum powder	-.43	.16	.11	-.24	0.44	.44
Tooth paste	-.31	.08	-.22	-.29	-.21	-.20
Vitamins	-.24	.15	-.10	-.21	0.14	-.19
% of variance	11.08	4.63	5.50			
Redundancy	1.56	1.23	0.79			
Canonical R	0.32	0.28	0.23			
Canon. R Sq.	0.10	0.08	0.05			
F Sig.	0.13	0.54	0.84			

Though none of the 6 Canonical Variate was statistically significant, the first Canonical Variate definitely indicated a trend that highly Sociability (-.79) but Not Detachment (.41) and Not Relaxed (.33) would be more Likely to purchase Fashion Adoption (-.54) Fast food (-.49) Soft drinks (-.45) Talcum Powder (-.43) Perfume (-.39) Shampoo (-.32) Tooth paste (-.31) and not Headache remedies (.47).

As discussed earlier, though the Canonical Variate was not statistically significant, definitely it indicated the trend as hypothesised (H3) that highly Sociable would be the more Likely purchasers of Social products.

The Canonical correlational Analysis using the Personality variables as the subset of the Predictor set with both the Frequency and Likelihood measures of Criterion set indicated that only one Root was significant for the Frequency measures, whereas no Root was significant when the analysis was performed with the Criterion measure of Likelihood measure. However, the Canonical analysis using the Likelihood measure indicated the trend proposed in this study but it lacked the statistical rigour, hence it can not be taken as a significant finding.

4.2.4. Canonical analysis between Perceptual variables and Criterion variables.

Canonical analysis was performed between Perceptual variables (Predictor set) and the Criterion set comprised of Frequency of purchase measures. Similarly another Canonical analysis was performed between the perceptual variables and the Criterion comprising of Likelihood of purchase measures. The results of each analysis and discussions are presented below.

4.2.4.A. Canonical analysis between the set of Perceptual variables and the set of Frequency of purchase variables.

Of the 400 cases entered into the Canonical analysis between Perceptual variables and Frequency measures, no case was rejected for missing data. Thus all the 400 cases were accepted for the analysis. Initial statistics on the data to test the sphericity, determinant and multivariate test of significance yielded that Bartlett Test of Sphericity was found significant ($P < .000$), the determinant was close to zero (.01596) and the multivariate tests of significance using Pillais, Hotellings and Wilks was not significant ($F = .829, .824$ and $.826$ respectively).

Thus the multivariate test of significance indicated that the population means differed from the hypothesised constant.

The Canonical analysis between the perceptual variables and Frequency of purchase measures yielded 4 Canonical roots (variates). The first Canonical variate had the highest Canonical correlation among the four variates, which was just .27 (7% variance). Though the first Canonical variate's correlation was the highest among the other variates, it was not of a higher magnitude, because it could account for a mere 7% overlapping variance between the variates of Predictor and Criterion set.

With all the four Canonical correlations included the F was not statistically significant ($P < .826$). Thus the dimension reduction analysis indicated that not even a single root was statistically significant, therefore the interpretations of the variates lacked the statistical rigour. However, the findings are presented in Table 4.2.4.A.

Table 4.2.4.A. Showing Correlations, Standardized Canonical Coefficients between Perceptual variables and Frequency of purchase variables and their corresponding Canonical Variates for the first three Roots.

	Correlations Roots			Coefficients Roots		
	1	2	3	1	2	3
Predictors						
Luck	.45	.79	-.41	-0.06	1.03	-.68
Task	.17	-.67	-.70	-0.20	-0.26	-.90
Ability	.46	-.22	.74	0.04	0.18	.20
Effort	-.97	.07	.19	-1.67	0.51	-.38
% of variance	35.16	28.45	31.54			
Redundancy	0.36	0.20	0.11			
Criterion						
Biscuits	-.40	.00	-.33	-0.27	0.02	-.26
Body ache	.14	-.01	-.27	-0.08	0.26	-.38
Chocolates	-.23	-.01	-.30	-0.04	-0.00	-.22
Complexion aids	-.00	.01	-.22	-0.00	-0.06	-.38
Cosmetics	.08	.03	.20	0.18	-0.07	.55
Fashion adop.	.04	-.14	-.06	0.25	-0.21	-.20
Fast food	-.08	-.29	.07	0.10	-0.35	.18
Hair oil	-.12	.08	.18	0.34	0.05	.08
Headache rem.	-.41	-.24	.08	0.60	-0.37	.14
Health food	-.12	-.31	.01	-0.17	-0.36	-.11
Perfume	.16	.47	-.08	0.47	0.75	-.33
Ready-made garm.	-.25	.23	.14	-0.39	0.17	.15
Toilet soap	-.08	.40	.29	-0.01	0.47	.01
Soft Drinks	-.35	-.16	.07	-0.37	-0.18	.00
Shampoo	-.37	.16	.33	-0.49	0.14	.32
Talcum powder	-.22	.04	.19	-0.08	-0.04	-.08
Tooth paste	.08	.18	.54	0.34	0.01	.49
Vitamins	-.13	-.13	.24	-0.09	-0.08	.24
% of variance	4.99	4.64	5.84			
Redundancy	2.57	1.23	0.62			
Canonical R	0.27	0.20	0.14			
2						
Canonical R	0.07	0.04	0.01			
F Sig.	0.826	0.987	0.998			

As seen in Table 4.2.4.A., the first Canonical correlation was just .27 representing merely a 7% overlapping variance between the first pair of variates and the first variate was also not statistically significant.

However, a cursory look at the correlations, indicated that Effort (-.97) and Not luck (.45) nor Ability (.46) were associated with the most Frequent purchase of Biscuits (-.40), Soft drinks(-.35) Shampoo (-.37) and not Headache remedies. indicating that individuals attributing own experiences of success or failure more to Effort tended to purchase more of ready - to - consume, energy products, contributing to their physical Effort.

4.2.4.B. Canonical analysis between the set of Perceptual variables and the set of Likelihood of purchase variables. The Canonical analysis between the Perceptual variables and the Criterion set comprising of Likelihood of purchase variables more or less yielded similar results; as no variate was statistically significant.

Of the 400 cases entered into the analysis only 394 cases were accepted since 6 cases were rejected because of missing data. Bartlett test of sphericity was significant ($P < .000$) and the determinant was close to zero (.00088), while the multivariate test of significance using Pillai's Hotelling's and Wilks' (.607, .614 and .611 respectively) were not significant confirming that the population means do differ from the hypothesised constant.

The Canonical analysis produced 4 Canonical roots and the first Canonical correlation was just .25 (6% variance). Thus none of the four variates was statistically significant (significance level of $F = .611, .773, .950$ and $.979$ respectively for the four Canonical variates. The results of the Canonical analysis between the Perceptual variables and Likelihood of purchase variables are presented in Table 4.2.4.B.

Table 4.2.4.B. Showing Standardized Canonical Coefficients and Correlations between Perceptual variables and Likelihood of purchase variables and Canonical variates for the first three Roots.

	Correlations			Coefficients		
	Roots 1	2	3	Roots 1	2	3
Predictors						
Luck	.70	.50	-.38	.27	.76	.51
Task	-.74	.13	-.61	-.93	.40	.17
Ability	.17	-.92	.09	-.14	-.39	.75
Effort	-.25	.29	.86	-.52	.66	1.41
% of Variance	28.95	30.49	32.14			
Redundancy	0.22	0.25	0.18			
Criterion						
Biscuits	-.32	-.17	.25	-.33	.11	.20
Bodyache	-.06	-.16	-.06	.20	-.07	-.02
Chocolates	-.04	.33	-.00	.30	.46	-.23
Complexion aids	-.33	.03	-.06	-.75	.11	.05
Cosmetics	-.00	-.07	-.03	.16	-.32	-.00
Fashion adop.	.07	-.00	.00	.04	-.25	-.10
Fast food	-.12	-.23	.26	-.08	-.37	.05
Hair oil	.26	-.17	.33	.50	-.10	.37
Headache Rem.	-.16	-.32	-.24	-.16	-.26	-.46
Health food	-.24	.31	.00	-.42	.67	-.10
Perfume	.34	.15	-.07	.58	.27	-.25
Ready-made Garm.	.17	.18	.01	.09	.36	.04
Toilet soap	.08	-.06	.64	.09	.36	.82
Soft drinks	-.11	-.21	.34	-.13	-.31	.40
Shampoo	.00	-.19	-.00	.21	-.20	-.35
Talcum power	-.25	-.16	.21	-.53	.07	.26
Tooth paste	-.01	-.33	.16	-.09	-.51	-.51
Vitamins	.02	-.11	.10	.30	-.17	.21
% of Variance	3.55	4.26	5.26			
Redundancy	1.82	1.79	1.15			
Canonical R	0.25	0.24	0.18			
Canon.R Squared	0.06	0.05	0.03			
F Significance	0.611	0.773	0.950			

As seen in the table 4.2.4.B, the first correlation is .25 (6% variance) which was the highest among the four Roots. As mentioned before none of the Canonical Root was statistically significant. However, the results indicated that when the first Canonical variates were taken together those who attributed to Task (-.74) and not Luck (.70) would be more likely to purchase Biscuits (-.32) Complexion aids (-.33) and not Perfume (.34). Thus, indicating that individuals attributing their success or failure more to Effort would tend to purchase more of Health/Medicinal products, in this case the finding is in line with the proposed hypothesis (H8) only with reference to Biscuits from among the Medicinal/Health product group.

Thus both the Canonical analysis using Perceptual variables as Predictors and Frequency of purchase and Likelihood of purchase variables have indicated that the analysis did not produce even a single Canonical variate as statistically significant. But the results indicated that individuals who attributed their success or failure more to a variable nature (viz. Effort or Task difficulty) having internal or external origin tended to purchase often and also were more likely to purchase Biscuits, compared to other products from among the Health/Medicinal product group.

4.2.5. Canonical analysis between Motivational variables and the Criterion variables of Frequency of purchase and Likelihood of purchase measures. Two different Canonical correlational analysis were carried out using Motivational variables as Predictor set with (a) Frequency of purchase and (b) Likelihood of purchase variables. Both the analysis are presented below.

4.2.5.A. Canonical analysis between the set of Motivational variables and the set of Frequency of purchase variables.

The Canonical correlation between Motivational variables and the Frequency of purchase variables, 400 cases were entered and all the 400 cases were accepted for the analysis.

Bartlett test of sphericity was significant ($P < .000$) and the determinant was close to zero (.01680). The Pillais, Hotelling's and Wilks' multivariate test of significance was significant at 0.03 level.

The Canonical analysis produced 6 Canonical variates, the first root having a Canonical correlation of .32 (10% variance) while the Variates had lesser than .30 as the Canonical Correlation accounting for less than 10% variance.

The dimension reduction analysis showed that with all the correlations included the F was significant ($P < .034$) and with the first Canonical variate removed the F was not significant ($P < .248$) and also the subsequent F tests were not significant. Thus the first Canonical correlation accounted for the significant linkage between the two sets of variates. Therefore only the first Canonical variate is interpreted. The results of the Canonical analysis are presented in Table 4.2.5.A.

Table 4.2.5.A. Showing Correlations, Standardized Canonical Coefficients between Motivational and Frequency of purchase variables and their corresponding Canonical Variates for the first three Roots.

	Correlation Roots			Coefficients Roots		
	1	2	3	1	2	3
Predictors						
Achievement	-.79	-.05	.01	-.57	-.09	-.16
Power	-.13	.44	.87	-.03	.44	.90
Control	-.10	.17	.08	.08	.06	.07
Dependence	-.52	-.70	.32	-.21	-.82	.45
Extension	-.53	.30	-.19	-.27	.44	-.20
Affiliation	-.63	.21	-.11	-.45	.31	-.20
% of Variance	27.27	14.48	15.43			
Redundancy	0.66	0.42	0.57			
Criterion						
Biscuits	-.61	.13	-.20	-.66	-.04	-.03
Bodyache	.35	-.08	-.19	.45	-.04	-.31
Chocolates	-.24	.36	-.20	.00	.44	-.02
Complexion aids	.09	-.20	-.18	.09	.02	.36
Cosmetics	.05	-.36	-.60	.12	-.43	-.52
Fashion adop.	-.11	-.24	-.27	-.02	-.14	.03
Fast food	.10	.16	-.38	.34	.28	-.20
Hair oil	-.24	-.49	-.07	-.17	-.60	.00
Headache Rem.	.16	-.19	-.03	.00	-.19	.21
Health food	-.23	.08	-.14	-.22	.33	-.01
Perfume	-.13	-.13	-.50	-.11	.05	-.31
Ready-made Gar	-.25	-.24	-.03	-.26	-.30	.23
Toilet soap	-.43	.14	-.26	-.36	.28	-.18
Soft drinks	-.19	-.11	-.31	-.18	-.37	-.01
Shampoo	-.03	.06	-.64	.18	-.05	-.54
Talcum power	-.09	.17	-.51	-.04	.44	-.06
Tooth paste	-.21	-.00	-.01	.04	-.03	.17
Vitamins	.02	.10	.05	.10	.26	.32
% of Variance	6.30	4.84	10.53			
Redundancy	2.85	1.27	0.84			
Canonical R	0.32	0.29	0.23			
2						
Can.R	0.10	0.08	0.05			
F Sig.	0.03	0.24	0.68			

As seen in Table 4.2.5.A., the first Canonical correlation was .32 representing 10% overlapping variance between the first pair of Canonical variates. Though the first Canonical correlation was .32 and statistically significant ($P < .03$) it did not represent a substantial relationship between the variates. The first Canonical variate extracted 27.27% variance in the Motivational set. Similarly 6.30% variance was extracted from the Criterion set. The first Motivational variate reduced 2.85% of the uncertainty in the Criterion set thus the Motivational variate 'explained' 2.85% of the variance in the Criterion set. Similarly the first Criterion variate reduced .66% of the variance in the Motivational set.

With as cut off correlation of .30 for interpretation, the variables relevant to the first Canonical variate in the Motivational set were in order of magnitude, Achievement, Affiliation, Extension and Dependence. Among the Criterion variables, Biscuits, Toilet soap and Bodyache remedies; taken as a pair, the first Canonical variates indicated that those with high Achievement (-.79), Affiliation (-.63) Extension (-.53) and Dependence (-.52) Motivation oriented tended to purchase more often Biscuits (-.61), Toilet soap (-.43) and not Bodyache remedies (.35).

Thus the Frequent purchase of Biscuits, belonging to the Health/medicinal product group tended to be highly and positively influenced by high Achievement and Affiliation Motivational dimensions. The findings did not confirm the proposed hypothesis (H5).

4.2.5.B. Canonical analysis between the set of Motivational variables and the set of Likelihood of purchase variables.

The second Canonical analysis using Motivational variables and Likelihood of purchase variables yielded 6 Canonical variates. Of the 400 cases entered 6 were rejected because of missing data, hence 394 cases were accepted and entered into the analysis. Primary statistical tests of sphericity and multivariate test of significance indicated that Bartlett Test of sphericity was found significant ($P < .000$), the determinant was close to zero (.00097) and the multivariate tests of significance using Pillais ($P < .055$), Hotelling's ($P < .049$) and Wilks' ($P < .052$) were all statistically significant at .05 level.

Of the 6 Canonical variates produced, the first Canonical correlation was .34 accounting 37.97% variance and representing 12% of overlapping variance between the motivational and Criterion set of variables.

while the second correlation was 12% and the third 7% variance and 7% overlapping variance. The other correlations were not of higher magnitude.

Of the six Canonical variates produced, the dimension reduction analysis indicated that with all the Canonical correlations included the F test was significant ($P < .052$) at 0.05 level. With the first Canonical correlation removed and subsequently none of the F test was significant. Hence the first Canonical variate accounted for the significant linkages between the two sets of variables. The results are shown in Table 4.2.5.B.

Table 4.2.5.B. Showing the Correlations Canonical Correlations between Motivational and Likelihood of purchase variables and their corresponding Canonical Variates for the first three Roots.

	Correlation Roots			Coefficients Roots		
	1	2	3	1	2	3
Predictors						
Achievement	-.34	-.55	-.25	-.17	.60	-.06
Power	-.29	-.36	.29	-.19	-.42	.31
Control	-.59	-.35	-.09	-.46	-.43	-.07
Dependence	.70	.00	-.91	.30	-.27	-.89
Extension	-.21	.64	.00	-.11	.54	.22
Affiliation	-.80	.07	-.35	-.73	.03	-.17
% of Variance	21.10	16.67	18.59			
Redundancy	0.78	0.65	0.31			
Criterion						
Biscuits	-.26	.26	-.36	-.27	.24	-.42
Bodyache	.37	-.12	-.53	.42	-.18	-.57
Chocolates	-.04	.38	.05	.01	.15	.39
Complexion aids	.39	.16	-.09	.11	-.25	-.08
Cosmetics	.33	.42	.02	.19	.24	.23
Fashion adop.	.26	.39	-.26	.19	.12	-.51
Fast food	-.15	-.00	.29	-.06	-.35	.58
Hair oil	.05	.13	-.37	.27	-.01	-.32
Headache Rem.	.34	.05	-.11	.27	.22	.28
Health food	-.13	.19	-.20	-.26	.25	-.28
Perfume	.10	.38	.20	-.23	.20	-.10
Ready-made Gar.	.28	.28	-.20	.33	.02	.11
Toilet soap	-.42	-.01	-.40	-.48	-.28	-.13
Soft drinks	-.23	.25	-.01	-.21	.04	-.33
Shampoo	.11	.37	.01	.25	-.08	.21
Talcum power	-.06	.63	.30	-.13	.69	.15
Tooth paste	-.31	.13	-.39	-.26	.11	-.09
Vitamins	-.02	-.24	-.11	-.01	-.62	.10
% of Variance	6.47	8.75	6.23			
Redundancy	2.56	1.23	0.93			
Canonical R	0.34	0.27	0.22			
Can.R Sq.	0.12	0.07	0.05			

As seen in Table 4.2.5.B. only the first Canonical variate was found statistically significant. However it was only at 0.05 level, the Canonical correlation also was just .35, accounting for an overlapping variance of a mere 12% hence the relationship between the variates was not substantial.

The first variate had extracted 21.10% of variance from the Motivational set and 6.47% from the Criterion set and the Motivational set had reduced 2.56% of uncertainty in the Criterion set and similarly the Criterion set has reduced .78% of uncertainty in the Motivational set.

With a cut off correlation of .30 for interpretations, the variables relevant to the first Canonical variate in the Motivational set were, in the order of magnitude were Affiliation, Control and Achievement. Among the Likelihood of purchase variables Toilet soap, Not complexion aids Not Body ache remedies, Not Cosmetics, Not Headache remedies and Tooth paste.

Taken as a pair, the first Canonical variate indicated that those with high Affiliation (-.80) Control (-.59) and Achievement (-.34) as the dominant Motivational patterns tended to be the more Likely purchasers of Toilet soap (-.42) and Tooth paste (-.31).

They also tended to be more likely not to purchase Complexion aids (.39) Bodyache remedies (.37), Headache remedies (.34) not Cosmetics (.33). Thus the results indicated and confirmed part of the proposed hypotheses (H4 and H5), that individuals with dominant Motivational patterns characterized by Achievement and Control would be the most likely purchasers of Personal Care/Grooming products. The analysis brought out only Toilet soap from among the Personal Care product group.

Similarly, it was also hypothesised that Individuals with Control as the least dominant Motivational dimension would tend to be the most likely purchasers of Medicinal/Health products, and from the Medicinal product group two products emerged significantly, namely, Bodyache and Headache remedies as the least Likelihood of purchase by individuals with Control as the dominant Motivational dimensions. Thus the findings confirmed two hypotheses, H4 and H5. that individuals with high Affiliation and Control would be the more likely purchasers of Personal Hygiene products such as Tooth paste and Toilet soap and they would not be the likely buyers of Medicinal products such as Headache and Bodyache products and Personal Care oriented Cosmetics and Complexion aid products.

The subsequent Canonical roots, which were not statistically significant hence they are not interpreted.

The two different Canonical analysis performed using two separate Criterion sets indicated that both the Canonical analysis yielded only a single Canonical variate as statistically significant which were again only at 0.05 level. While the Frequency measures indicated that individuals with Achievement and Affiliation as the dominant Motivational patterns tended to buy Biscuits and Soap and Bodyache products, while the Likelihood measures as Criterion set indicated that Affiliation and Achievement as the dominant Motivation oriented tended to be the more likely buyers of Toilet soap and Tooth paste and were not the Likely buyers of Medicinal and Personal care products such as Complexion aids and Cosmetics. Thus the Criterion of Likelihood measure confirmed two hypotheses of the three proposed, while the Criterion set comprising of the Frequency measure confirmed only one of the proposed hypotheses.

4.7.Ø. Summary of the Canonical Analysis

Two separate Canonical analyses were performed between Predictor variables and Criterion variables. The first analysis comprised of Personality, Perceptual Motivational and Demographic variables in the Predictor set and the Criterion set comprised of the Frequency of purchase variables, while the second Canonical analysis comprised of Predictor variables and the Criterion set comprised of Likelihood of purchase variables.

Both the analyses indicated that Sex accounted for purchase of Socially oriented and Personal grooming products i.e., Females tended to purchase more often Socially oriented and Personal grooming products, thus confirming the hypothesis H1Ø. Since both the analyses indicated the role of Sex in purchase behaviour further Canonical analyses were carried out using Personality, Perceptual and Motivational variables as separate Predictor sets as against Frequency of purchase and Likelihood of purchase measures (Criterion set).

The analysis using Personality variables as the Predictor set and the Frequency of purchase variable yielded one root, as significant indicating that high Compliance and Sociability Temperament oriented tended to purchase more often Socially oriented products such as Ready-made Garments, Cosmetics, Biscuits and not Medicinal or Headache remedies confirming the proposed hypothesis H3 .

While the second analysis between Personality and Likelihood of purchase measures indicated that not a single root was significant, however the first root indicated a probable Likelihood that highly Sociable Temperament oriented individuals would be the most likely purchasers of Socially oriented products. Thus both the Criterion measures have yielded similar results.

The analysis between the Perceptual measures and the Frequency of purchase as the Criterion measures indicated that both the Canonical analysis did not produce any significant Canonical Root. Hence no interpretations were made with the statistical rigour, thus indicating that the Perceptual measures did not significantly contribute any significant linkages to either Frequency of purchase or the Likelihood of purchase of the three groups of products.

The third set of analysis using Motivational variables in the Predictor set and Frequency and Likelihood of purchase in the Criterion set indicated that both the analysis produced one each Canonical variate as statistically significant and both of them were significant only at 0.05 level. The analysis using Motivational and Frequency variables indicated that high Achievement, Affiliation, Extension and Dependence as the dominant Motivational dimensions tended to purchase Biscuits and Toilet soap and not Bodyache remedies, while the analysis between Motivational set and Likelihood of purchase measures indicated that those with high Affiliation followed by Achievement tended to be the most Likely purchasers of Toilet soap and not Bodyache and Headache remedies.

Thus the Canonical analysis confirmed H3, H4, H6 that high compliant and Sociability would tend to buy/likely purchasers of socially oriented products, girls would be more likely and frequent purchasers of social products and both the measures of Criterion variables would yield the same results.

4.3.0. DISCRIMINANT FUNCTION ANALYSES

Two separate sets of Discriminant Function Analyses were performed namely between the most Frequent purchasers (group 1) and the least Frequent purchasers (group 2) for 18 products and similarly another set of Discriminant Function Analysis between the most Likely purchasers (group 1) and the least Likely purchasers (group 2) for the 18 products.

Thus in all 36 Discriminant Function analyses were performed using Stepwise Selection Algorithms of increasing Rao's V as the Variable Selection Rule. Rao's V method was used because the option was available, and has been employed in similar work by Schaninger, Lessig and Pantton (1980) and was suggested as particularly handy for stepwise analysis (Tabachnick and Fidell, 1983).

Stepwise analysis was used because it combines the features of both forward selection and backward elimination, and there was no a priori reason for ordering entry of variables into the discriminating equations.

Thus the stepwise method allows the variable having the largest acceptable value for inclusion and after the first variable is entered, the value of the criterion is re-evaluated for all variables with the largest acceptable criterion value is entered next. At this point the variable entered first is re-evaluated to determine whether it meets the removal criterion. If it does, it is removed from the model. Thus the process continues till the variables do not meet the criterion.

Having selected the stepping method with the Selection Rule of change in Rao's V , the minimum Tolerance level of .001, the minimum F to enter (value) as 1.000 and the maximum F to remove as 1.000; was kept. The Tolerance is a measure of the degree of linear association between the Independent Variables. Variables with small Tolerances were not entered into the analysis.

Based on the Discriminant scores, Cases were classified. The technique used in SPSS/PC + Discriminant is based on Bayers' rule. Hence classification outputs were also obtained for each Discriminant Function Analysis. Since Cases for each group were not known, and no information about the probability of group membership was available, equal probabilities for both the groups were selected.

The stepwise Discriminant Function analysis was carried out using SPSS DISCRIMINANT. In a two group Discriminant analysis SPSS-DISCRIMINANT produces only one discriminant Function accounting for 100% variance.

The Canonical Discriminant Function Analysis produces additional statistics such as Eigen value, Canonical Correlation, Wilks Lambda and its transformation to a Chi-Square value and its significance level. The Canonical Correlation, in a two group situation is simply the usual Person's Correlation Coefficient between the discriminant score and the group variable. Large Eigen values are associated with "good" functions.

The results and discussions for the various Discriminant Function Analyses carried out to test the hypotheses are presented below.

4.3.1. Discriminant Function Analysis for Frequency of purchase.

As discussed in the third chapter the Frequency of purchase was measured on a five point scale ranging from Never, Sometimes. Occasionally, most frequently and Always.

Thus the Cases could be grouped into 5 categories. However, in the present study, the 'Never' and 'Sometime' purchasers were grouped as the 'Least Frequent Purchasers' (group 1) and the 'Most Frequent' and 'Always' purchasers were grouped as 'Most Frequent purchasers' (group 2) and the Cases belonging to 'Sometime purchase' category were eliminated in the Discriminant analysis. Thus the Discriminant Function Analysis for the Frequency of purchase comprised of 2 groups for each of the 18 products forming as the grouping variables.

Discriminant Function Analysis was performed for each of the 18 products between the 2 groups based on the Frequency of purchase. The result of the analysis under the three product classifications namely Health/Medicinal products, Personal care and grooming products and Socially oriented products are presented and discussed.

Since each category comprised of 6 products, the Discriminant Function Analysis for each product therefore is presented separately along with the summary for the product classification.

HEALTH/MEDICINAL PRODUCTS

The summary of the number of Cases under Health/Medicinal product group is shown in Table 4.3.1.A.

Table 4.3.1.A. Showing the number of Cases belonging to Group 1 (Least Frequent purchasers) and Group 2 (Most Frequent purchasers) of Health/Medicinal Products.

Products	Group 1 least Frequent purchasers	Group 2 most Frequent purchasers
Biscuits	189	114
Body ache Remedies	292	19
Chocolates	205	82
Headache Remedies	255	61
Health food	149	157
Vitamins	128	104

Stepwise Discriminant Function Analyses were performed between the least Frequent and the most Frequent purchasers of Health/Medicinal products. Initially the analyses performed stepwise variable entry/removal meeting the required norms discussed earlier. Based on the variables entered into the stepwise analyses, Discriminant Function, Discriminant Function Coefficients, Correlations between the Discriminant Function and the Discriminating Variables and the Classification of Cases were computed. The results of the Discriminant Function Analyses are presented below.

The Discriminant Function Analyses initially tested the data for Univariate Equality, Wilk's Lambda and Box's M for group Covariance matrices. The results are presented below.

The tests for Univariate Equality of group means (The SPSS DISCRIM, produces F values, which are square of the t values from the 2 group sample, when the groups are two only) indicated that Sex was significant at .005 level ($F = 12.56$) while Compliance ($F = 8.954$, $P < .003$), Sociability ($F = 8.215$, $P < .004$) Achievement ($F = 7.744$ $P < .005$) and Extension ($F = 6.997$ $P < .008$) levels, among the predictor variables indicating that the group means for the above variables were significantly different for Biscuits Product group. Similarly, variables Aggression ($F=5.151$; $p<.02$) and Affiliation ($F=3.599$; $p<..05$) had significant mean differences between the groups. While, the group means for Sex, Ability, Sociability, Dependence and Compliance were significantly different for Chocolates product group.

For Headache Remedies product, group means for Compliance ($F = 3.921$; $P < .04$), variable had a significant mean difference between the groups. The group means for Health Food products variable Sex ($F = 3.353$, $P < .068$) had a significant difference.

Finally, group means for variable Relaxed ($F = 6.207; p < .01$) and Sex ($F = 4.370; p < .03$) were significantly different.

The results of Wilks Lambda for Biscuits product indicated that the mean Tenure in hostels for both the groups were equal (Lambda = 1.0000). Examination of pooled within-groups correlation matrix indicated that no correlation coefficient was larger for any predictor variable, thereby indicating that the predictor variables were independent and not interdependent. The U statistics for Body-ache Remedies product showed that the group means for variable Affiliation orientation was equal for both the groups. For Chocolates and Health Food products, none of the Predictor variables had equal means between groups. On the other hand the group means for variable Power orientation was equal for both the groups, for Headache Remedies. While the mean scores of Power motivation was equal for both the groups for Vitamin products.

The results of Box's M test for Biscuits product, which is based on the Determinants of the group, Covariance matrices indicated (Box's M = 36.030, Approximate F = .97029; $P < .5193$) that the covariance matrices were equal.

The group covariance matrices were different for Body-ache Remedies and Headache Remedies, (Box's $M = 175.68$; approximate $F = 2.5204$; $P < .0000$) and (Box's $M = 20.743$, with an approximate $F = 1.3396$, significant at .1684) respectively, which could have been due to the disproportionate size of the Cases in both the groups. For Chocolates product the Covariance matrices were equal for both the groups (Box's $M = 17.09$, approximate $F = .79036$ significant at .7352. groups. The Covariance matrices for Health Food were the same for both the groups. (Box's $M = 30.15$, with an approximate $F = 1.0506$ significant at .3917) and the Covariance matrices for Vitamin products were the same for both the groups. (Box's $M = 19.676$, with an approximate $F = .91055$ significant at .5773 level).

Table 4.3.1.B: Showing the Correlations between the Predictor Variables and the Discriminant Functions, Canonical Correlations, Eigen Values, Chi Squared and their Significance levels for Health/Medicinal Products.

Correlations Between Predictor Variables with Respective Discriminant Functions						
Predictor Variables	Bisc. uits	Body. Ache	Choco lates	Head Ache	Heal. Food	Vita mins
Compliance	.44	-.02	.22	.58	.29	-.04
Aggression	-.03	-.44	.33	.16	.07	.38
Detachment	-.22	.33	.09	.04	.38	.34
Sociability	.42	-.11	.42	.24	-.28	.06
Relaxed	-.01	.15	-.12	.14	.02	.62
Int. Control	.06	.02	.13	.19	-.04	.15
Luck	-.03	.20	.09	.06	.38	.17
Task	-.08	.16	.04	-.21	-.03	.28
Ability	-.24	-.16	-.44	-.30	-.12	.01
Effort	.25	.05	.20	.44	-.17	-.29
Achievement	.41	.16	.17	.16	-.10	.22
Affiliation	.19	.37	.03	.47	-.14	.06
Power	.13	-.03	-.01	.03	-.05	-.09
Dependence	.16	.08	-.35	.09	-.13	.09
Control	.03	.03	.05	.16	.21	.02
Extension	.39	-.01	.09	.01	-.43	.09
Hostel	-.06	-.00	-.10	.06	.04	.20
Sex	.52	.27	.45	-.44	-.50	-.52
Canonical R	.37	.28	.28	.19	.21	.26
Eigen Value	.16	.09	.08	.04	.04	.07
Chi Squ.	42.93	25.31	22.58	11.27	12.97	15.56
Df.	(8)	(10)	(6)	(5)	(7)	(6)
Significance	.0000	.0048	.0009	.046	.0728	.016

The results of the Discriminant Function Analyses for the health/Medicinal products indicated that though the Functions were all very significant except for Headache Remedies and Health Food, they were not "good" Functions as the Eigen Values were very small.

The Eigen Values ranged from .04 to .16. However, the Functions for Biscuit, Body-ache Remedies, Chocolate and Vitamin products were very highly significant. Examination of the Canonical Correlation of the Functions indicated that they were also not very large as they ranged from .21 to .37. The results of each product is presented below.

BISCUITS

Based on the 8 variables entered into the stepwise calculation, the Discriminant Function Analysis produced only one Discriminant Function (which is the case for 2 group Discriminant analysis in SPSS-Discriminant) accounting for 100% variance between groups, having an Eigen value of .16, Canonical correlation .37. The Function was significant $X^2(8) = 42.93$ ($P < .0000$). Examination of the standardized Discriminant Function coefficient, indicated that Sex, Achievement and Compliance had larger Coefficients, contributing larger values to the second group namely the most Frequent purchasers.

The Canonical Discriminant Function evaluated at group means (group centroids) indicated that the least Frequent purchasers had a smaller Discriminant Function ($-.30524$) than the most Frequent purchasers ($.50606$).

The loading matrix of pooled-within-groups correlations between discriminating variables and the Canonical Discriminant Function indicated that the primary predictor variables separating the least Frequent purchasers from the most Frequent purchasers of Biscuits, using a cut off correlation of .30, were Sex (.52) Compliance (.44) Sociability (.42) Achievement (.41) and Extension (.39).

As seen in the Table above, the most Frequent purchasers of Biscuits were Females ($M = 1.64$), high on Compliance ($M = 41.24$), Sociability Temperament ($M = 14.38$), with Achievement ($M = 18.26$) and Extension ($M = 16.54$) as the dominant Motivational patterns. Thus, the most Frequent purchasers of Biscuits were Females, high on Sociability and Compliant Temperament having dominant Motivational patterns of Achievement and Extension orientations.

BODY-ACHE REMEDIES

Based on the 10 variables entered into the stepwise analysis, one Discriminant Function was produced having an Eigen value of .08683, accounting for 100% of variance. The Canonical Correlation was .28 and with all the functions included the $X^2(10) = 25.313$ significant at .0048, indicating that the Discriminant Function was significant.

The Discriminant Function evaluated at group means (group centroid) showed that group 1 had small Function (.07492) while group 2 had large Function (-1.15148). The examination of standardized Discriminant Function Coefficients indicated that Luck, Task and Effort had large Coefficients for group 1 while Aggression had large Coefficients for group 2.

The loading matrix of pooled-within-group correlations between discriminating variables and the Canonical discriminant Function showed that the most Frequent purchasers of Body-ache remedies were highly Aggression (-.44), not Detached (.33) and not Affiliation oriented. Thus indicating that those with Temperament of high Aggression but low on Detachment and Affiliation as the least dominant Motivation ($M = 14.63$) tended to purchase more frequently Body-ache remedies.

Thus, the most Frequent purchasers of Body-ache remedies tended to be highly Aggression and least Affiliation oriented.

CHOCOLATES

The Discriminant analysis yielded one Discriminant Function having an Eigen value of .08338 accounting for 100% variance. The Canonical Correlation was .28. With all the functions included the $X^2(6) = 22.583$ significant at .009 level. The Discriminant Function evaluated at group means showed that group 2 had large Function (.45496) while group 1 had small Function (-.18198).

The results of the loading matrix of pooled-within-group correlation between the 18 discriminating variables and the Discriminant Function indicated that the primary variables separating the most Frequent from the least Frequent purchasers of Chocolates were in the order of magnitude, Sex (.45), Not Ability (-.44), Sociability (.42), Not Dependence (-.35) and Aggression (.33).

The most Frequent purchasers of Chocolates were, Females (mean = 1.58) highly Sociability (m = 14.38), attributing one's experiences least to Ability (m = 4.52) and least Dependence oriented (m = 16.57). Thus the correlational results between the predictor variables and the Discriminant Function showed that generally Females with high Sociability Temperament, Dependence as the least dominant Motivational pattern and attributing their experiences of success or failure least to Ability tended to purchase Chocolates most Frequently. Thus, the most Frequent purchasers of Chocolates were Females who were highly Sociable and did not attribute to Ability.

HEADACHE REMEDIES

The Discriminant Function based on the 5 predictor variables had an Eigen value of 0.04. The Canonical Correlation was .19. With all the functions the Chi-squared (5) = 11.265 significant at .04 level. When the Discriminant Function was evaluated at group means, Group 2, the most Frequent purchasers of Headache Remedies had larger Function (-.39111), while Group 1 had smaller Function (.09356); thus indicating that group 2 had been maximally separated from group 1 by the Discriminant Function. The Discriminant Function was significant only at .05 level hence the interpretations are done with caution.

Further examination of standardized Discriminant Function Coefficients indicated that variables Effort, Compliance, Affiliation and Luck were associated with Group 1, the least Frequent purchasers of Headache Remedies; while Sex was associated with Group 2, the most Frequent purchasers of Headache remedies.

The results of the loading matrix of pooled-within-groups correlation between the 18 discriminating variables and the Discriminant Function indicated that the primary variables separating the most Frequent purchasers from the least Frequent purchasers of Headache Remedies were, in the order of magnitude, not Compliance (.58) not Affiliation (.47) not Effort (.44) and Sex (-.44).

The most Frequent purchasers of Headache Remedies were Females (Mean = 1.57) less Compliant (M = 38.56) less Affiliation (M = 15.22) and less Effort (M = 5.06) oriented. Thus, the most Frequent purchasers of Headache Remedies tended to be more of Females, who were low on Compliant Personality dimension but high on Affiliation Motivation, and attributing own experiences of success or failure less to Effort.

HEALTH FOOD

The Discriminant Function based on the 7 predictor variables had an Eigen value of .04. The Canonical Correlation was .21. With all the functions the Chi-squared (7) = 12.971 significant at .07 level. When the Discriminant Function was evaluated at group means, Group 2, the most Frequent purchasers of Health food had smaller Function (-.20393), while group 1 had larger Function (.21488). The Discriminant Function was significant only at .07 level hence the interpretation was done with caution.

Further examination of standardized Discriminant Function Coefficients indicated that variables Sex, Extension and Sociability were associated with group 2, while Luck, Detachment and Compliance were associated with group 1.

The results of the loading matrix of pooled-within-groups correlation between the 18 discriminating variables and the discriminating Function showed that the primary variables separating the most Frequent purchasers from the least Frequent purchasers of Health food were, in the order of magnitude, Sex (-.50) Extension (-.43) Not Detached (.38) and Not Luck (.38).

Since the Discriminant Function was not highly significant, the interpretations of loadings are done with caution.

The least Frequent purchasers of Health food were Males (Mean = 1.44) with Extension (M = 15.78) motivation but who were Detached (36.41) and attributed to Luck (2.44). Thus the correlational results between the predictor variables and the Discriminant Function showed that Males attributing their experience of success or failure to Luck and more Detachment Personality with low Extension motivation oriented tended to be the least purchasers of Health food. However, the Discriminant Function being not very highly significant the results could only taken as an indication and not as a statistical inference.

Thus, the most Frequent purchasers of Health Food tended to be more of Females with high Extension Motivational orientation.

VITAMIN PRODUCTS

The Discriminant Function based on the 6 predictor variables had an Eigen value of .07. The Canonical Correlation was .26. With all the functions the Chi-squared (6) = 15.556 significant at .01 level. When the Discriminant Function was evaluated at group means, group 2, the most Frequent purchasers of Vitamins and group 1 had smaller Function.

Further examination of standardized Discriminant Function Coefficients indicated that variable Sex was associated with group 2, the most Frequent purchasers while Relaxed, Detached, and Task were associated with group 1, the least Frequent purchasers of Vitamins.

The results of the loading matrix of pooled-within-groups correlation between the 18 discriminating variables and the Discriminant Function indicated that the primary variables separating the most Frequent purchasers from the least Frequent purchasers of Vitamins were in the order of magnitude, Not Relaxed (.62) Sex (-.52) Not Aggression (.38) Not Detached (.34)

The most Frequent purchasers of Vitamins were Tense (Not Relaxed), Mean = 10.43; Females (M = 1.51), less Aggression (M = 47.74) and less Detached (M = 36.00) oriented individuals. Thus the least Frequent purchasers of Vitamins were Males with Personality dimensions of highly Aggression and Detachment oriented yet Relaxed.

CLASSIFICATION ANALYSES

As discussed earlier, the Discriminant Function Analyses also produced Classification of the Cases based on the variables entered into the Stepwise analyses. The summary of the Total Percent of the Cases correctly classified are presented below.

Table: 4.3.1.C. Showing the Total Percent of Cases Correctly Classified for each of the Six Products belonging to Health/Medicinal Product Group.

Products	Total Percent of Cases Correctly Classified
1.Biscuits	66
2.Body-ache Remedies	78
3.Chocolates	60
4.Headache Remedies	59
5.Health Food	57
6.Vitamins	65

BISCUITS

The classification analysis based on the Discriminant Function comprised of 8 variables model accounted for 66% of Cases correctly classified. Further analysis on classification was performed at each step of the stepwise analysis. At the first step Variable Sex entered into the analysis, accounting for 59% of correct classification. At the second and the third step variables Achievement and Compliance orientations were entered and accounted for a mere 2% increase in the classification. However, the model comprising of Sex, Achievement, Compliance, Detachment and Sociability accounted for almost 65%, thus indicating that the five variable model could account for more or less the same extent as that of the 8 variables model and they tended to be better discriminating variables compared to the other variables.

BODY-ACHE REMEDIES

The classification output yielded that the discriminant Function based on the 10 variables correctly classified 78.14 of the Cases.

Hence classification analysis at each step was performed, which indicated that Aggression, Detached, Affiliation and Sociability model alone, more or less accounted for 78% of Cases correctly classified. Thus additional inclusion of other predictor variables would not have yielded a significant contribution to the classification process thereby might not be better discriminating variables.

CHOCOLATES

The classification output indicated that 60.28% of the Cases were correctly classified. Considering the total percent of Cases classified correctly on the basis of 6 variables being 60%, further classification analysis were performed at each step. The model having only variable Sex, accounted for 56% correct classification of Cases. When Sociability was included the classification increased to 59% and with Ability in the model the correct classification was as equal to the 6 variable model. Thus the results indicated that the model comprising of Sex, Sociability and Ability emerged as better discriminating variables. Additional variables in the model brought a fluctuation in the prediction of membership correctly.

HEADACHE REMEDIES

The classification analysis based on 5 variables model accounted for an overall 59.49% of Cases correctly classified. Hence, further analysis on classification was performed at each step of the stepwise analysis. At the first step variable Compliance entered into the analysis, accounting for 56.96% correct classification. At the second step variable Sex was included and both the variables again accounted for 56.96% of correct classification inclusion of Sex at the second step did not alter the classification results. Subsequently when Affiliation and Effort variables were included in the model the classification output was 59.89% and it came down to 59.49% when Luck was included. Thus the first four variables tended to discriminate both the groups better.

HEALTH FOOD PRODUCTS

The classification analysis based on 7 variables model accounted for an overall 57.19% of Cases correctly classified. Hence, further analysis on classification was performed at each step on the stepwise analysis. At the first step variable Sex entered and accounted for 55.23% correct classification.

At the second step variable Extension was included and both the variables accounted for 56.21%. When Detachment orientation was included at the third step the classification improved to 57.52%. When Luck was included at the next step classification came down, indicating that the first 3 variables model seemed to be better discriminating model.

VITAMIN PRODUCTS

The classification analysis based on 6 variables model accounted for an overall 65% of Cases correctly classified. Hence, further analysis on classification was performed at each step of the stepwise analysis. At the first step variable Relaxed entered accounting for 54% correct classification. At the second step variable Sex was included and both the variables accounted for 59% of correct classification. When variable Detachment was included in the model the classification output decreased. The 5 variables model including Relaxed, Sex, Detached, Task and Luck the correct classification improved to 63%, indicating they tended to be better discriminating variables.

SUMMARY

The results of the Stepwise Discriminant Function Analysis for the Health/Medicinal products indicated that :

1. The most Frequent purchasers of Medicinal/Health products tended to be more of Females than Males. The finding was not in line with the proposed hypothesis (H1Ø) that Females would buy less Frequently these products but the findings showed the opposite trend.

2. The most Frequent purchasers of Health/Medicinal products tended to be highly Sociable and Compliant but they were also low on Detachment, less Tensed but high Aggression oriented. The results thus confirmed part of the hypothesis (H2) that those with the Personality orientations of high Detachment, Aggression and Tense temperaments would tend to buy more frequently Health/Medicinal products.

3. The Frequency of Purchasing Health/Medicinal products tended to be determined by those who did not attribute their experiences of success or failure more to Ability, Effort and Luck.

The finding thus indirectly confirmed again part of the proposed hypothesis (H8) that individuals attributing more to Task Difficulty would tend to purchase most Frequently Health/Medicinal products.

4. The most Frequent buyers of Health/Medicinal products were determined by dominant Motivational patterns of Extension, Achievement and also by the least dominant Motivational orientations of Affiliation, Dependence Motivational orientations. Thus Frequent purchase of Health/Medicinal products were determined by those with high Achievement Motivation oriented having a superordinate goal going beyond self and who would like to be more relevant to others tended to be the most Frequent purchasers of Health/Medicinal products. Thus indicating that the purchase of these products were more determined by Motivational variables other than what has been hypothesised.

Thus the analysis of the results for the Health/Medicinal products indicated that the most Frequent purchasers of these products were Females who were high on Sociability, Compliant, but Aggressive, having higher Achievement and Extension motivation. They were however, not Detached, nor Relaxed. They were also low on Affiliation and Dependency Motivational orientations and did not attribute to Ability nor Luck.

On the other hand, the least Frequent Purchasers of Health/Medicinal products tended to be Males, who were more Detached, Relaxed yet Compliant. They also tended to be high on Affiliation and Dependence Motivation and they attributed to Ability or Effort or Luck for their success or failures.

SOCIALLY ORIENTED PRODUCTS

Stepwise Discriminant Function Analysis for each of the six products belonging to the Socially oriented product group was carried out. The results and the analyses are presented below. A summary of the cases belonging to the least Frequent purchasers (Group 1) and the most Frequent purchasers (Group 2) for each product is presented in the Table below.

Table 4.3.1.D. Showing the number of cases belonging to Group 1 and Group 2.

Products	Group 1 Least Frequent Purchasers	Group 2 Most Frequent Purchasers
Complexion aids	302	30
Cosmetics	277	42
Fashion Adoption	169	94
Fast Food	122	161
Ready-made Garments	255	61
Soft Drinks	22	112

The Stepwise Discriminant Function Analysis was carried out between the least Frequent purchasers (Group1) and the most Frequent purchasers (Group 2) for each of the products. The results of the Test of Univariate Equality of Group means, the U Statistic and Box's M are presented below.

The Test of Univariate Equality of group means indicated that Sex ($F = 4.853$, $P < .028$) and Extension Motivation ($F = 3.170$; $P < .075$) had significant means between the groups for the product Cosmetics; Sex ($F = 4.146$, $P < .042$) had significant means between the groups, for cosmetics, Sex ($F = 12.42$, $P < .0005$), Control ($F = 3.616$, $P < .058$) and Power ($F = 3.311$, $P < .069$) had significant mean differences between the groups.

For Fashion Adoption, Sex ($F = 13.09$, $P < .000$), Dependence orientation ($F = 4.892$, $P < .027$) and Sociability ($F = 3.918$, $P < .048$), had significant mean differences between the groups, for Fast Food, Sociability ($F = 14.04$; $P < .000$) and Achievement ($F = 8.525$; $P < .003$) had significant mean differences for Ready made Garments and finally Sociability ($F = 3.440$) significant at .06 level had significant mean difference for Soft Drinks.

The U statistic indicated that the group means for Complexion Aids, variables Task and Dependency were equal for both the groups ($\Lambda = 1.0000$). Similarly for Cosmetics, the group means for variable Luck was equal while variables Luck and Ability were equal for Fashion Adoption.

For products Fast Food and Soft Drinks no variable had equal means between the groups. Group means for Ready-made Garments product, variable Affiliation had equal means for both the groups.

The results of Box's M for Complexion Aids product showed that the covariance matrices were the same for both the groups (Box's M = 31.639; approximate $F = 1.0298$; $p < .4212$).

The covariance matrices for Cosmetics product were the same for both the groups (Box's $M = 65.567$; approximate $F = 1.0855$; $p < .092$). The covariance matrices for Fashion Adoption were the same for both the groups. (Box's $M = 45.958$, with an approximate $F = .79791$; $p < .8590$). The covariance matrices for Fast Food product were the same for both the groups. (Box's $M = 39.142$, with an approximate $F = 1.3601$; $p < .0969$). The that the covariance matrices for Ready-made Garment product groups were the same for both the groups. (Box's $M = 20.645$, with an approximate $F = 1.3494$; $p < .1629$ level). Finally for product Soft Drinks the covariance matrices were the same for both the groups. Box's $M = 30.225$, with an approximate $F = .94318$; $p < .506$ level). Thus the results of the Box's M indicated that the data for the Socially oriented products did not violate normality.

Having done the prerequisite statistical analyses such as the The Test of Univariate Equality, The U statistic and the Box's M , the Stepwise Discriminant Function Analysis then computed the selection of variables, Discriminant Function and other analyses. The results of the analyses are presented for each of the product.

Table 4.3.1.E: Showing the Correlation between Predictor variables and the Discriminant Function for each of the six products belonging to the Socially oriented Group. Eigen value, Canonical Correlation, X² and its significance level for each Discriminant Function.

Correlation between Predictor variables with respective Discriminant Function						
Predictor	Compl. Aids	Cosmetics	Fash. Adop.	Fast Food	Ready. Garm.	Soft Drink
Compliance	.27	.20	-.24	.11	.03	-.01
Aggression	.20	-.28	.15	.03	.15	.02
Detachment	.24	.28	-.17	.00	-.18	-.03
Sociability	.26	-.17	.29	-.35	.75	.50
Relaxed	.28	-.06	.04	.17	.14	.30
Int. Control	.00	.05	.01	.09	.23	-.27
Luck	.27	-.09	-.07	.32	-.04	-.28
Task	.07	-.02	.14	-.02	-.08	.18
Ability	.18	.03	.02	-.03	.04	-.09
Effort	.04	.05	-.08	-.09	.08	.27
Achievement	.11	.25	.19	.13	.58	.17
Affiliation	.04	.00	.09	-.03	.01	.34
Power	.00	.36	-.31	.18	-.19	.06
Dependence	.10	-.00	.05	.39	.08	.14
Control	.02	.36	-.32	.03	.06	.09
Extension	-.41	.21	-.01	.20	.20	.22
Hostel	.14	.16	-.13	.11	-.01	-.29
Sex	.51	-.43	.59	-.63	-.10	-.14
Canonical R	.23	.26	.34	.33	.28	.31
Eigen Value	.06	.07	.13	.12	.09	.11
X ²	18.21	21.58	32.37	30.70	23.89	12.85
df.	(7)	(10)	(10)	(7)	(5)	(7)
Sig.	.011	.017	.0003	.0001	.0002	.075

The results of the Stepwise Discriminant Function Analyses for the Socially oriented products are shown in the above Table. The interpretation for each product is presented below.

COMPLEXION AIDS

The Stepwise Discriminant Function analysis produced one Discriminant Function having an Eigen value of .06 accounting for 100% variance. The Canonical Correlation was a mere .23. With all the functions included the $X^2(7) = 18.217$ significant at .01 level. The Discriminant Function evaluated at group means showed that Group 2 had large function (.75773) while group 1 had small function (-.07527).

Examination of standardized Discriminant Function Coefficients showed that variables Sex and Aggression orientation had large Coefficients relating to group 2, (more Frequent purchase of Complexion aids), while Extension and Detachment orientation had large functions associated with group 1. (the least Frequent purchasers of Complexion aids products).

The loading matrix of pooled-within-group correlation between the discriminating variables and the Discriminant Function for Complexion aids indicated that the primary Predictor variables separating the most Frequent purchasers from the least frequent purchasers were in the order of magnitude, Sex (.51) and Extension (-.41).

As seen in the above Table, the most Frequent purchasers of Complexion Aids were Females (mean = 1.67) with low Extension Motivation (M = 15.13). The correlational results between the Predictor variables and the Discriminant Function showed that the most Frequent purchasers tended to be Females with the dominant Motivational dimension characterised by making oneself more relevant to others (Extension motive).

COSMETICS

The Stepwise Discriminant Function Analysis produced one Discriminant Function having an Eigen value of .07 accounting for 100% variance. The Canonical Correlation was a mere .26. With all the functions included the X^2 (10) = 21.586 significant at .01 level. The Discriminant Function evaluated at group means showed that Group 2 had large function (-.68519) while group 1 had small function (.10389).

The examination of Standardized Discriminant Functions Coefficients showed that variables Sex and Aggression orientation had large Coefficients relating to group 2, while Extension and Detached orientation had large functions associated with group 1.

The results showed that Females with Aggressive Temperament were associated with Frequent purchase, while Extension Motivation and Detached Personality dimensions were associated with least Frequent purchase of Cosmetics.

As for as Cosmetics were concerned the loading matrix of pooled-within-group correlation between the discriminating variables and the Discriminant Function indicated that the primary Predictor variables separating both the Groups were in the order of magnitude, Sex (-.43) Control (.36) and Power (.36).

The most Frequent purchasers of Cosmetics were Females (mean = 1.61) with Power (16.42) and Control Motivation (M = 14.78) as the least dominant Motivational patterns. Thus the analysis indicated that the Frequent purchase of Cosmetics was positively determined by Sex and Motivational dimensions.

FASHION ADOPTION

The Discriminant Function based on the 10 Predictor variables had an Eigen value of .13 accounting for 100% variance.

The Canonical Correlation was .34. With all the functions the Chi-squared (10) = 32.375, significant at .0003 level. When the Discriminant Function was evaluated at group means, Group 2, had larger function (.49044), while Group 1 had smaller function (- .27279). Further examination of standardized Discriminant Function Coefficients indicated that variables Sex, Sociability and Achievement orientation were associated with Group 2, while Power and Control orientation were associated with Group 1.

The results of the loading matrix of pooled-within-groups correlation between the 18 discriminating variables and the Discriminant Function for Fashion Adoption indicated that the primary variables separating the most Frequent purchasers from the least Frequent purchasers were, in the order of magnitude, Sex(.59), Control (-.32) and Power (-.31).

The most Frequent purchasers of Fashion Adoption materials were Females (Mean = 1.60), Not Control (M=14.85) and Not Power (M=16.61) oriented. Thus the correlational results between the Predictor variables and the Discriminant Function showed that Females with the least dominant motivational dimensions of Power and Control tended to be the most Frequent purchasers of Fashion oriented products.

FAST FOOD

The Discriminant Function based on the 7 Predictor variables had an Eigen value of .12 accounting for 100% variance. The Canonical Correlation was .33. With all the functions the Chi-squared (7) = 30.702 significant at .000 level. When the Discriminant Function was evaluated at group means, Group 2, had small function (-.29669), while group 1 had larger function (.39153). Further examination of standardized Discriminant Function Coefficients indicated that variables Dependence orientation (.46) and Luck attribution (.32), were associated with Group 1, while Sex (-.72) and Sociability (-.55) were associated with Group 2.

The loading matrix of pooled-within-groups correlation between the 18 discriminating variables and the Discriminant Function for Fast Food indicated that the primary variables separating the most Frequent purchasers from the least Frequent purchasers of Fast food were, in the order of magnitude, Sex (-.63), Dependence orientation (.39) and Sociability (-.35).

The least Frequent purchasers of Fast Food were Males (Mean = 1.37) with Sociability (M = 13.43) Personality trait with high Dependence Motivation (M = 17.60). Thus indicating that the most Frequent purchasers of Fast Food were Females, high on Sociability Personality trait but low on Dependence Motivational dimension. Thus, results showed that purchasing of Fast Food tended to be determined by Sex and Sociability variables.

READY-MADE GARMENTS

The Discriminant Function based on the 5 Predictor variables had an Eigen value of .09 accounting for 100% variance. The Canonical Correlation was .28. With all the functions the Chi-squared (5) = 23.890 significant at .0002 level.

When the Discriminant Function was evaluated at group means, Group 2, had larger function (.35466), while group 1 had smaller function (-.24618). Further examination of standardized Discriminant Function Coefficients indicated that variables Sociability (.77) and Achievement (.54) were associated with group 2, while Affiliation (-.37) and Power (-.32) were associated with group 1.

The results of the loading matrix of pooled-within-groups correlation between the 18 discriminating variables and the Discriminant function for Ready-made Garments indicated that the primary variables separating the most from the least Frequent purchasers of Ready-made Garments were, in the order of magnitude, Sociability (.75) and Achievement (.58) orientations.

The most Frequent purchasers of Ready-made Garments were high on Sociability (Mean = 14.52) and Achievement (M = 18.38) as dominant Motivational orientation, indicating that both Males and Females with high Sociability temperament having Achievement as the dominant Motivational dimension tended to be the most Frequent buyers of Ready-made Garments.

SOFT DRINKS

The Discriminant Function based on the 7 Predictor variables had an Eigen value of .11 accounting for 100% variance. The Canonical Correlation was .31. With all the functions the Chi-squared (7) = 12.852 significant at .07 level.

When the Discriminant Function was evaluated at group means, group 2, had smaller function (.14266), and group 1 had larger function (-.72629), indicating that group 1 had been maximally separated from group 2 by the Discriminant Function. Further examination of standardized Discriminant Function Coefficients indicated that variables Internal control (-.63) and Hostel tenure (-.38) were associated with group 1, while Sociability (.59), Effort (.55) and Relaxed (.54) were associated with group 2.

The results of the loading matrix of pooled-within-group correlation between the 18 discriminating variables and the Discriminant Function for Soft Drinks indicated that the primary variables separating the most from the least Frequent purchasers of Soft Drinks were, in the order of magnitude, Sociability (.50), Affiliation (.34) and Relaxed (.30).

The most Frequent purchasers of Soft drinks were Sociability (Mean = 12.90) Affiliation (M = 14.95) and Relaxed (M = 10.59). The results showed that both Males and Females who were highly Sociable, with Affiliation as the dominant Motivation and Relaxed tended to purchase more Frequently Soft drinks.

RESULTS OF CLASSIFICATION ANALYSIS

The Discriminant Function Analysis also produced classification outputs. The classification output was based on the Discriminant scores. The present study also made an attempt to compute the classification at each step for the stepwise entry of the variables for each of the six products under Socially oriented product group. The summary of the classification outputs for the Socially oriented products are presented below.

Table 4.3.1.F. Showing the summary of the total Percent of the Cases Correctly Classified for each of the Six Socially oriented Products.

Products	Percent of Cases Correctly Classified
Complexion Aids	63.55
Cosmetics	65.83
Fashion Adoption	63.88
Fast Food	63.25
Ready-made Garments	61.46
Soft Drinks	68.66

COMPLEXION AIDS

In the Discriminant Function Analysis for the Complexion Aid product, 7 variables entered into the Stepwise analysis and based on those variables both the Discriminant Function and the Discriminant scores were computed which was used eventually for classifying the cases.

Since the 7 variables model accounted for about 63.55% further analysis was carried out to find the classification produced at each step of the stepwise analysis. When variable Sex was included in the model, the correct classification of cases was 55.42%. When Extension was included in the model, the classification increased into 58.43%; and further inclusion of Sociability variable improved the correct classification to 60%, which was more or less same as that of the 7 variables model indicating that the variables Sex, Extension and Sociability tended to be better discriminating variables.

COSMETICS

The classification out put for Cosmetics indicated that using 10 variables model could correctly classify the cases about 65.83%. Hence, further classification analysis were performed using the Predictor variables that entered at each step. Stepwise classification showed that when only Sex was included in the model, the correct classification of cases was 55.80%.

When Aggression and Extension were included in the model, the classification increased into 57.00%; and further inclusion of Sociability variable the cases correctly classified was 60%, thus indicating that of the 18 Predictor variables Sex, Aggression, Extension and Sociability tended to discriminate better.

FASHION ADOPTION

The overall prediction of group membership based on the 10 variables for Fashion Adoption accounted for about 63.88%. Further analyses on classification were performed at each step of the stepwise analysis. At the first step variable Sex entered, accounting for 61.72% correct classification. At the second step variable Sociability was included and both the variables accounted for 62.74% of correct classification. When the variable Power entered at the third step the correct classification came down to 62.36%. Hence, the 2 variables model comprising of Sex and Sociability emerged as better discriminating variables.

FAST FOOD

The overall prediction of group membership based on the 7 variables model for the Fast Food product accounted for 63.25%. Hence, further analysis on classification was performed at each step. At the first step as seen in the above Table, variable Sex entered accounting for 60.42% correct classification. At the second step variable Sociability with Sex accounted for 61.84% of correct classification. Subsequent steps included Dependence and Luck. When both were included the classification improved to 65%. But when the other three variables, Power, Compliance and Extension were included the classification came down to 63.35%. Thus the first two variables produced classifications as good as the 7 variables model and they emerged as better Predictor variables.

READY-MADE GARMENTS

The overall prediction of group membership based on the 5 variables model for Ready-made garments product accounted for 61.46%. Hence, further analysis on classification was performed at each step on the stepwise analysis.

At the first step variable Sociability entered accounting for 57.29% correct classification. At the second step variable Achievement and Sociability accounted for 60.07% of correct classification. Subsequent steps did not produce any marked improvements in the classification output.

SOFT DRINKS

The overall prediction of group membership based on the 7 variables model for Soft Drinks model accounted for 68.66%. Hence, further analysis on classification was performed at each step of the stepwise analysis. At the first step variable Sociability entered accounting for 64.18% correct classification. At the second step variable Internal control was included and both the variables accounted for 58.96% of correct classification, thereby reducing the classification output, and further inclusions of variables even upto 5 steps did not increase the classification as compared to the one variable model, thus indicating that only variable Sociability could be better discriminating variable. have been used for classification process.

Thus, the stepwise Discriminant Function analysis between the least and the most Frequent purchasers of Socially oriented products indicated that for Fashion Adoption products, the most Frequent purchasers tended to be Females with least dominant Motivational patterns of Power and Control. As far as purchasers of Fast Food indicated that the most Frequent purchasers tended to be Females, who were high on Sociability but low on Dependence Motivational orientation.

Similarly, for Ready-made Garments, the most Frequent purchasers tended to be high on Sociability and high on Achievement Motivational dimension. The most Frequent purchasers of Soft drinks tended to be high on Sociability, Relaxed temperaments and with Affiliation as the dominant Motivational dimension.

Finally the discriminant Function Analysis for the product Complexion Aids and Cosmetics indicated that the most Frequent purchasers of these products were Females with Extension, Power and Control as the least dominant Motivational patterns.

The summary of the results of the six Discriminant Functional Analyses for the Socially oriented products are given below.

SUMMARY

The results of the stepwise Discriminant Function Analysis for the Socially oriented products indicated that:

1. Generally, Females tended to purchase more Frequently Socially oriented products, thus confirming the proposed hypothesis (H10) that Females would be the most Frequent purchasers of Socially oriented products.

2. Personality variables Sociability and Relaxed were associated with the most Frequent purchasers, indicating that both the variables tended to positively influence the purchase of these products. Thus the findings confirmed the proposed hypothesis (H3) that highly Sociable temperament oriented would tend to purchase most often Socially oriented products.

3. Motivational variables Affiliation and Achievement orientations were associated with the most Frequent purchase of Socially oriented products. The findings also confirmed the proposed hypothesis (H6), that individuals with Affiliation as the dominant Motivational pattern would tend to purchase most Frequently Socially oriented products.

4. The results also showed that none of the Perceptual variables was associated with the purchase of the Socially oriented products, thereby, the finding did not confirm the hypothesis (H9) that individuals attributing more to Ability would tend to be the most Frequent purchasers of this product group.

5. Further, the analyses also showed that generally, Males with Power and Control as the dominant Motivational patterns tended to be the least Frequent purchasers of Socially oriented products.

Thus, the Stepwise Discriminant Function Analyses for the Socially oriented product group confirmed three of the Hypotheses, namely H3, H6 and H10.

PERSONAL CARE/GROOMING PRODUCTS

Stepwise Discriminant Function Analyses were carried out for six of the Personal Care/Grooming products, namely, Hair Oil, Perfume, Shampoo, Talcum Powder, Toilet Soap and Tooth Paste. Discriminant Function Analyses were performed between the least Frequent purchasers and the most Frequent purchasers of these products. A summary of the number of Cases belonging to the least Frequent (Group 1) and the most Frequent purchasers (Group 2) are shown in Table 4.3.1.A.

Table 4.3.1.G. Showing the Number of Cases belonging to Group 1 and Group 2 for Personal Grooming/Care Products.

Personal Care/ Grooming Products	Group 1 Least Frequent Purchasers	Group 2 Most Frequent Purchasers
Hair Oil	142	154
Perfume	286	45
Shampoo	87	77
Talcum Powder	87	87
Toilet Soap	9	27
Tooth Paste	9	22

As mentioned earlier six Discriminant Function Analyses were performed between the least Frequent and the most Frequent purchasers of each product. The results of the Stepwise variable selection, Classification of the Cases at each step, Discriminant Function, Correlation and other outputs are presented and discussed below.

The Stepwise Discriminant Function Analyses performed preliminary statistical analyses such as the The Test of Univariate Equality of Means, The U Statistic and the Box's M on the data. The results are presented below.

The Test of Univariate Equality of group means showed that variable, Dependence had a statistically significant mean difference between the groups ($F=7.849$, $p<.005$) of Hair Oil purchasers.

For Perfume products the group means for variables Sex ($F = 5.05, P < .03$), Sociability ($F=6.342; P < .01$) and Effort ($F=4.429; P < .03$), had significant mean differences.

The Test of Univariate Equality of group means for Shampoo products showed that variable Sex ($F = 8.926$) was significant at .003 level while variable Internal control ($F = 3.348$) was significant at .06 level. Similarly, for Talcum Powder, variables Sex ($F = 10.87; p < .001$) and Internal Control ($F = 3.860; p < .05$) had significant mean differences; while for Toilet Soap product the group means for Achievement had different means between the groups and finally, for Tooth Paste product, group means for variable Sex ($F = 13.63; p < .000$), Power ($F = 3.877; p < .05$) and Relaxed and Luck were significant at .10 levels.

The U statistics for Hair Oil, Shampoo and Tooth Paste products showed that none of the predictor variables had equal means between the the groups. For Perfume product, variable Hostel was equal for both the groups, ($\Lambda = 1.0000$). Similarly for Talcum Powder, variables Sociability and Dependence were equal for both the groups, while, the group means for Toilet Soap, variable Achievement was equal for both the groups,

The results of Box's M showed that the covariance matrices for Hair Oil and Shampoo products were the same for both the groups. (Box's M=20.440, with an approximate $F = .95217$; significant at .5215) and (Box's M = 5.5523, with an approximate $F = .90670$ significant at .4885 level) respectively.

The results of Box's M showed that the covariance matrices for Perfume and Talcum Powder products were different for both the groups. (Box's M = 31.760, with an approximate $F = 2.0286$ significant at .01 level) and (Box's M = 28.124, with an approximate $F = 1.8165$ significant at .0268 level) respectively, which could be due to the discrepancy of the cases in both the groups..

The results of Box's M for Toilet Soap and Tooth Paste products indicated that the number of cases in each group being too few the covariances were not computed by the SPSS DISCRIM.

The results of Box's M indicated that only Hair Oil and Shampoo products had same covariance matrices. Products Perfume and Talcum Powder had different covariance matrices indicating that the possibility that the data was not normally distributed.

Box's M being very sensitive to minor deviations, it has to be viewed with regard to the discrepancy in the number of Cases in each Group. Further, the covariance matrices were not at all computed for both the Toilet Soap and Tooth Paste products as there were too few Cases to be nonsingular, therefore, not enough nonsingular covariance matrices for Discriminant Function Analysis.

Thus, having done the prerequisite statistical analyses, the Stepwise Discriminant Function Analyses performed the stepwise variable selection, Discriminant Function, Coefficients, Correlations and Classification outputs. The findings of the Personal Grooming/Care products should be viewed as a trend because four products out of six had violated the normality of the data.

Table 4.3.1.H. Showing the Correlations between Predictor variables and the Discriminant Function, Eigen value, Canonical R, Chi-squared value and its significance level for the Personal Grooming/Care products.

Correlation between Predictor variables with the respective Discriminant function						
Predictors	Hair Oil	Perf ume	Sham poo	Talc. Powd.	Toil. Soap	Tooth Paste
Compliance	.29	-.34	-.03	.03	-.39	.02
Aggression	-.30	-.08	-.16	.24	-.05	.06
Detachment	-.03	-.07	-.07	-.17	-.20	-.04
Sociability	.04	.51	-.19	-.16	.27	.02
Relaxed	-.17	-.00	-.31	-.25	.24	-.13
Int.Control	-.06	-.01	-.50	-.42	.15	-.08
Luck	.06	.19	-.08	-.32	-.18	-.16
Task	.03	.14	-.06	.03	.11	-.03
Ability	-.11	.16	-.18	.12	.31	.15
Effort	-.00	-.43	-.29	.10	.05	.03
Achievement	-.15	.01	-.31	-.16	.11	-.07
Affiliation	.04	.11	-.01	.01	-.12	-.05
Power	.34	-.28	-.07	-.07	-.07	.06
Dependence	-.66	-.05	-.04	.03	-.07	.17
Control	.33	-.04	-.20	-.16	-.13	-.07
Extension	-.07	.15	.08	.09	.03	-.01
Hostel	-.04	-.09	-.13	-.19	.15	-.28
Sex	.36	.45	.82	.71	.01	.32
Canonical R	.24	.26	.28	.34	.70	.91
Eigen Value	.06	.07	.08	.13	.98	4.72
2						
X	17.16	23.41	12.72	20.25	16.77	40.11
Df.	(6)	(5)	(3)	(5)	(9)	(12)
Significance	.0087	.0003	.005	.001	.052	.0001

The results indicated that all the six Discriminant Functions were statistically significant. The Canonical Correlations were very small in magnitude,

Only Toilet Soap and Tooth Paste had large Correlations. Similarly, the Eigen values indicated that other than that of Soap and Paste the Discriminant Functions were not "good" ones.

However, the Covariance matrices other than Hair Oil and Shampoo, were not the same indicating that the data was not normal. Hence, the interpretations have to be viewed with caution. The results of each of the six products are presented below.

HAIR OIL

The Discriminant Function based on the 6 predictor variables had an Eigen value of .06 accounting for 100% variance. The Canonical Correlation was .24. With all the functions the Chi-squared (6) = 17.60 significant at .008 level. When the discriminant function was evaluated at group means, Group 2, and Group 1 had larger function.

The examination of standardized discriminant function coefficients indicated that variable Sex, Compliance and Control orientations were associated with Group 1, while variable Dependence was associated with Group 2.

The results of the loading matrix of pooled-within-groups correlation between the 18 discriminating variables and the discriminant function as shown in Table 4.3.1.B. indicated that the primary variables separating the most Frequent purchasers from the least Frequent purchasers of Hair oil were, in the order of magnitude, not Dependence (-.66), Sex (.36), Power (.34), Control (.33) and not Aggression (-.30).

As seen in the table above, the least Frequent purchasers of Hair oil were Females (Mean = 1.54) Control (M= 15.83) Power (M = 17.63), low on Dependence (M = 16.73) and low on Aggression oriented (M = 47.42). Thus the correlational results between the predictor variables and the discriminant function, showed that the least Frequent purchasers of Hair oil tended to be Girls with high Order and Influence Motivational dimensions and they were not Aggressive nor Dependence oriented.

PERFUME

The Discriminant Function had an Eigen value of .07 accounting for 100% variance. The Canonical Correlation was .26. With all the functions the Chi-squared (5) = 23.411 significant at .0003 level.

When the discriminant function was evaluated at group means, Group 2, had larger function (.68527), while group 1 had smaller function (-.10782); thus indicating that group 2 had been maximally separated from group 1 by the discriminant function.

Examination of standardized discriminant function coefficients indicated that variables Sociability (.71) and Sex (.55) were associated with group 2, while Effort (-.46) and Compliance (-.39) were associated with group 1.

The results of Perfume products indicated that the primary variables separating the most Frequent purchasers from the least Frequent purchasers of Perfume were, in the order of magnitude, Sociability (.51) Sex (.45) Not Effort (-.43) and Not Compliance (-.34).

The most Frequent purchasers of Perfume were Girls (Mean = 1.64) with Sociability Temperament (M = 14.80) who attributed less to Effort and low on Compliance.

SHAMPOO

The Discriminant Function based on the predictor variables had an Eigen value of .08 accounting for 100% variance. The Canonical Correlation was .28. With all the functions the Chi-squared (3)= 12.722 significant at .005 level. The Discriminant Function was highly significant. When the Discriminant Function was evaluated at group means, both the groups had smaller function.

Further examination of standardized discriminant function coefficients indicated that variables Sex (.78) and Effort (.32) were associated with group 2, while Internal control (-.53) was associated with group 1.

The results of the loading matrix for Shampoo products indicated that the primary variables separating the most and the least Frequent purchasers of Shampoo were, in the order of magnitude, Sex (.82), not Internal control (-.50) not Achievement (-.31) and not Relaxed (-.31).

The most Frequent purchasers of Shampoo were Males (Mean = 1.38) with less Internal control (M= 12.25), less Relaxed (M= 11.18) and low Achievement Motivation (M = 17.54) oriented.

Thus the results showed that Girls with more Internal control and Relaxed Temperament and Achievement Motivational dimension tended to be the least purchasers of Shampoo products.

TALCUM POWDER

The Discriminant Function based on the 5 Predictor variables had an Eigen value of .13 accounting for 100% variance. The Canonical Correlation was .34. With all the functions the Chi-squared (5) = 20.249 significant at .001 level. When the discriminant function was evaluated at group means, group 2, and group 1 had same function (.35416).

Further examination of standardized discriminant function coefficients indicated that variables Sex and Aggression orientations (.78) and (.38) respectively were associated with group 2, the most Frequent purchasers of Talcum Powder; while Internal control (-.46), Detachment (-.35) and Luck (-.33) were associated with group 1, the least Frequent purchasers.

The results of the loading matrix of Talcum Powder indicated that the primary variables separating the most Frequent from the least Frequent purchasers of Talcum Powder were, in the order of magnitude, Sex (.71), Not Internal control (-.42) and Not Luck (-.32).

The most Frequent purchasers of Talcum Powder were Females (Mean = 1.44) low on Internal Control (M= 12.19) and did not attribute to Luck (M= 2.13). Thus the showed that the least purchasers were those with high Internal control and who attributed success or failure to Luck and they were more of Boys than Girls.

TOILET SOAP

The Discriminant Function based on the predictor variables had an Eigen value of .98 accounting for 100% variance. The Canonical Correlation was .70. With all the functions the Chi-squared (9) = 16.769 significant at .05 level. When the discriminant function was evaluated at group means, group 2, had smaller function (-.61324), while group 1 had larger function (1.49903); thus indicating that group 1 had been maximally separated from group 2 by the discriminant function.

Further examination of standardized discriminant function coefficients indicated that variables Relaxed (.78), Ability (.88) Effort (.51) and Sociability(.58) were associated with group 1, the least Frequent purchasers while Dependence (-.74), Affiliation (-.70) and Power (-.54) were associated with group 2, the most Frequent purchasers of Toilet soap product group. The results of the loading matrix indicated that the primary variables separating the most Frequent purchasers from the least Frequent purchasers of Toilet soap products were, in the order of magnitude, Compliance (-.39) and Not Ability (.31).

The most Frequent purchasers of Toilet soap were high on Compliance Temperament (Mean = 35.22) and did not attributing to Ability (5.55). Thus the correlational results between the predictor variables and the discriminant function showed that irrespective of whether Boys or Girls those who are Compliant and not attributing success or failure to Ability tended to be the most Frequent purchasers of Toilet soap. However, it has to be viewed with caution since the number of cases in each group being too few and making a generalization might not be warranted.

TOOTH PASTE

The Discriminant Function based on the predictor variables had an Eigen value of 4.72 accounting for 100% variance. The Canonical Correlation was .91. With all the functions the Chi-squared (12) =40.112 significant at .0001 level. When the discriminant function was evaluated at group means, group 2, had smaller function (1.34403), while group 1 had larger function (-3.28540); thus indicating that group 1 had been maximally separated from group 2.

Further examination of standardized discriminant function coefficients indicated that variables Sex, Dependence, Luck, Aggression and Sociability were associated with group 2, while Internal control, Achievement, Effort, Extension were associated with group 1.

The results of the loading matrix for Tooth Paste products indicated that the primary variables separating the most Frequent purchasers from the least Frequent purchasers of Tooth paste was Sex (.32). The least Frequent purchasers of Tooth paste were Males (Mean = 1.22). However, the Discriminant function was not significant.

CLASSIFICATION RESULTS

The summary of the classification output for the Personal Care/Grooming products are presented below:

Table 4.3.1.I. Showing the summary of the total percent of cases correctly classified for each of the six Personal Care/Grooming products.

Products	Percent of cases correctly classified
Hair Oil	61.49
Perfume	65.86
Shampoo	59.15
Talcum Powder	65.00
Toilet Soap	87.10
Tooth Paste	100.00

HAIR OIL

The classification analysis based on the 6 variables model accounted for an overall 61.49% of cases correctly classified. Further analysis on classification was performed at each step on the stepwise analysis. At the first step, variable Dependence entered and accounted for 56.42% correct classification. At the second step variable Sex was included and both the variables accounted for 61.82% of correct classification.

Power was included at next step and the three variables model accounted for 62.50% of correct classification, which was more than the 6 variables model. At the fourth step when Control orientation was included the 4 variables model actually reduced the classification. Thus indicating that variables Dependence, Sex and Power tended to be better discriminating variables.

PERFUME

The classification analysis based on 5 variables model accounted for an overall 65.86% of cases correctly classified. Further analysis on classification was performed at each step on the stepwise analysis. At the first step variable Sociability entered and accounted for 56.5% correct classification. At the second step variable Sex entered and both the variables accounted for 60.42% of correct classification. Effort when included at the third step did not produce a marked output, but, when Compliance was included at the fourth step the classification output improved to 66.47% when all the five variables were included the classification was slightly reduced, thereby, indicating that the first Four variables tended to be better discriminating variables compared to the other 14 Predictors.

SHAMPOO

The classification analysis based on the 3 variables model accounted for an overall 59.15% of cases correctly classified. Further analysis on classification was performed at each step of the stepwise analysis. At the first step variable Sex entered and accounted for 61.59% correct classification. At the second step variable Internal control entered and the variables accounted for 62.20% of correct classification and when Effort was included in the model the classification was reduced to 59.15%. Thus, the 2 variables model namely Sex and Internal control could discriminate and classify Cases better, accounting for 62.20%.

TALCUM POWDER

The classification analysis based on the 5 variables model accounted for an overall 65% of cases correctly classified. further analysis on classification at each step was carried out. At the first step variable Sex entered, accounting for 61% correct classification. At the second step variable Internal control was included and both the variables accounted for 64% of correct classification.

Subsequently Luck and Aggression orientations were included at the third and fourth steps which actually reduced the correct classification. When Detachment orientation was included at the last step the 5 variables model accounted for 65%, indicating that the first 2 variables could discriminate and classify the Cases better than the other Predictor variables.

TOILET SOAP

The classification analysis based on the 9 variables model accounted for an overall 87.10% of cases correctly classified. Further analysis on classification was performed at each step of the stepwise analysis. At the first variable Ability was entered into the analysis, accounting for 67.74% correct classification.

At the second step variable Relaxed was included and both the variables reduced it to 64.52%. When Sociability was included at the third step there was a significantly improved classification output. Thereafter the fourth and fifth step when two more variables included the classification again reduced. Thus the fourth 3 variable model seemed to be a better discriminating model.

TOOTH PASTE

The classification analysis based on the 12 variables model accounted for an overall 100% of cases correctly classified. Further analysis on classification was performed at each step of the stepwise analysis. At the first step variable Sex entered into the analysis, accounting for 81% correct classification. At the second step variable Hostel entered and both the variables accounted for 84%. When the 5 variables (Sex, Hostel, Extension, Dependence and Internal control) were included the correct classification accounted for 90%. as against the 12 variables put together accounted for 100% correct classification. Thus, the Five variables model emerged as a better discriminating model.

Thus, the Stepwise Discriminant Function Analysis between the least and the most Frequent purchasers of Hair Oil indicated that the least Frequent purchasers of Hair oil tended to be Boys with Control and Power as dominant Motivational patterns. The most Frequent purchasers tended to be Girls who were Sociable, who did not attribute to Effort however, they were low on Compliance Temperament.

The most Frequent purchasers of Perfume were Girls who were highly Sociable and who did not attribute success or failure to Effort (the internal variable factor) and who were low on Compliant Personality orientation. Similarly, the least Frequent purchasers of Shampoo tended to be Boys who were Relaxed and high on Internal Control Temperamentally and were also high on Achievement Motivational dimension.

On the other hand, the least Frequent purchasers of Talcum Powder tended to be more Internal control oriented and attributed to Luck and were Boys, while, the most Frequent purchasers of Toilet Soap tended to be high on Compliant Temperament but did not attribute to Ability.

SUMMARY

The results of the Stepwise Discriminant Function Analysis for the Personal Grooming/Care products using the Frequency measure as the criterion variables indicated that:

1. Generally Boys tended to be the least Frequent purchasers of all the Personal care products, thus indirectly confirming the hypothesis (H10) that Females would tend to purchase more Frequently Personal Grooming/Care products.

2. Girls tended to purchase more frequently Perfume products.

3. Personality variable Sociability was associated with the most Frequent purchase of Personal Grooming products

4. While, Personality variables Relaxed and Internal Control were associated with the least Frequent purchase of Personal Grooming/Care products.

5. Motivational variables Power and Control orientations were associated with the least Frequent purchase of Personal Grooming products.

6. Males with dominant Dependency Motivational orientations tended to purchase Hair oil products.

7. Thus, the least Frequent purchasers of Personal Grooming products were, generally Boys with a higher Internal Control, Compliant and Relaxed Personality oriented with Achievement, Power and Control as the dominant Motivational orientations who attributed to Ability or Effort and Luck for their success or failure.

Thus, the results indicated that other than Perfume, all the other Personal Grooming products were bought by Boys than Girls, however, the least Frequent purchasers among Boys were characterised by their level of Internal Control and Relaxed Temperament, who could influence others and Order oriented and who attributed their success or failures to self and externally to Luck.

The findings thus confirmed the proposed hypotheses H1 and H4.

4.3.2. Stepwise Discriminant Function analysis for Likelihood of purchase

As discussed in the third chapter, the Likelihood of purchase was derived from Purchasability, Felt Need, Felt Pressure, Extent of Liking the product and the Importance Felt for the product. Each of the sub scales yielded a score ranging 1 to 5. Thus the final Likelihood scores ranged from 20 to 125 for each of the 18 products under study.

The present study however, identified two extreme groups based on the Likelihood of purchase (the lower 30% and the upper 30%) as the least Likely purchasers (group 1) and the most Likely purchasers (group 2) for the stepwise Discriminant Function analysis. The other cases who did not belong to the lower or upper 30%. were eliminated from the analysis. Thus for each of the 18 products the least Likely and the most Likely purchasers were identified and the Groups served as the Independent variables for the Discriminant Function Analyses.

The results of the Discriminant Function analysis is presented under the three product classifications, namely, Health/Medicinal, Socially oriented and Personal Grooming/Care products.

HEALTH/MEDICINAL PRODUCTS

As mentioned earlier, the Discriminant Function Analyses were performed between the Least Likely and the Most Likely purchasers (Group 1 and Group 2). The summary of the number of Cases belonging to each group for the Health/Medicinal products are presented below.

Table 4.3.2.A. Showing the number of Cases under each group, the least Likely purchasers or the lower 30% and (group 1) the most Likely purchasers or the upper 30% of the Cases (group 2) for Health/Medicinal Products.

Products	Group 1 least Likely purchasers (lowest 30%)	Group 2 most Likely purchasers (Highest 30%)
Biscuits	123	125
Body ache Remedies	120	120
Chocolates	122	126
Headache Remedies	117	121
Health food	117	115
Vitamins	116	131

The Discriminant Function Analyses initially tested the data for Univariate Equality of Means, the U Statistic and Box's M for normality. The results are presented below.

Results of Test of Univariate Equality, The U Statistics and Box's M for Group Covariance Matrices.

The Test of Univariate Equality of group means for Biscuit products indicated that Sex ($F = 3.780$) and Dependence ($F = 4.032$) were significant at .05 level. For Body ache Remedies showed, that variables Sex ($F = 3.780$) and Dependence orientation ($F = 4.032$) were significant at .05 level. Similarly for Chocolates products, the group means for variable Sex ($F = 6.536$) was significant at 0.01 level and for Headache Remedies, group means for variable Sociability ($F = 8.719$) had significant mean difference. The Test of Univariate Equality of group means for health Food products showed that Extension Motivational orientation was significant at .01 level ($F = 5.757$) was significant at .003 level. Finally, for Vitamin products, group means for Variables Achievement ($F = 5.010$) and Relaxed ($F = 4.556$) were significant at .03 level.

The U statistics showed that none of the Predictor variables had equal means between the groups for the product group of Biscuits. The group means for variables Sex and Dependence were equal ($\Lambda = 1.0000$) between the groups for Body ache Remedies; while, group means for variable Aggression orientation was equal between the groups for Chocolates products.

Similarly, variable Dependency had equal between the groups for Headache Remedies, group means for variable Control was equal between the groups for Health Food products and finally, group means for variable Compliance was equal between the groups for Vitamin products.

The results of Box's M showed that the covariance matrices for for all the six products of Health/Medicinal product group had similar Covariance matrices indicating the data was normal.(Biscuit, Box's M = 15.723, with an approximate F = .72863 significant at .8075 level; Body ache Remedies, Box's M = 15.723, with an approximate F = .72863 significant at .8075 level; Chocolates ,Box's M = 10.255, with an approximate F = 1.0076 significant at .4338 level; Headache Remedies, Box's M = 22.162, with an approximate F = 1.0268 significant at .4251 level; Health Food,Box's M = 13.229, with an approximate F = .86140 significant at .6084 level; and Vitamin Products, Box's M = 19.748, with an approximate F = .91574 significant at .5703 level).

Having done the primary statistical analysis, six separate Discriminant Function Analyses were performed for the Health/Medicinal products. Each analysis initially performed stepwise variable entry/removal and based on the variables entered into the analyses, Discriminant Function, Discriminant Function Coefficients, Canonical Correlations, Eigen Values, Significance levels and Classification outputs were produced. The results of the Correlation between the Discriminating Variables and the Discriminant Function and the Classification outputs are presented and discussed below.

RESULTS OF DISCRIMINANT FUNCTION ANALYSES

As mentioned earlier, the analyses were performed between the least Likely and the most Likely purchasers of the Health/Medicinal products. The results of the Correlation between the Discriminating Variables and the Discriminant Functions for the six products are presented below.

Table.4.3.2.B. Showing the Canonical Discriminant Functions, Correlation between the Discriminating Variables and the Discriminant Functions, Canonical Correlations, Eigen Values Chi Squared and their Significance levels.

Correlation Between Predictor Variables with Respective Discriminant functions						
Predictors	Bisc. uits	Body Ache	Choco lates	Head Ache	Health Food	Vita mins
Compliance	.55	.12	.11	.26	-.08	-.08
Aggression	.18	-.13	-.07	.00	-.05	.03
Detachment	.04	-.33	-.01	.07	.38	.04
Sociability	.18	.40	.20	-.68	-.05	.12
Relaxed	-.22	-.14	.03	-.07	.23	.53
Int. Control	.03	-.03	.13	-.22	.03	.18
Luck	-.31	.06	.02	-.13	-.05	.23
Task	.21	-.03	.04	.28	-.12	-.06
Ability	-.17	-.13	-.45	.08	.46	.05
Effort	.26	.06	.20	-.18	-.19	-.17
Achievement	.11	-.08	.39	-.18	-.06	.55
Affiliation	.40	.17	.15	-.27	-.06	-.02
Power	.03	.34	.04	-.03	.03	.07
Dependence	.32	-.48	.19	.01	-.34	-.29
Control	.00	.34	.03	-.38	.01	-.22
Extension	.33	.05	.20	.27	-.67	.07
Hostel	-.37	.01	-.32	-.01	-.00	.07
Sex	.16	.47	.67	.13	-.19	-.38
Canonical R	.33	.26	.24	.27	.23	.25
Eigen value	.12	.07	.06	.08	.06	.07
2						
X	28.53	16.36	13.88	17.98	12.32	15.70
Df.	(8)	(6)	(4)	(6)	(5)	(6)
Significance	.0004	.012	.007	.006	.031	.015

The results of the Discriminant Function Analyses for the Health/Medicinal products showed that all the six Canonical Discriminant Functions were highly significant.

However, the magnitude of Canonical Correlations were not large and the Eigen Values also indicated that all the Functions were not "good" Functions. The results and the discussions for each of the six Health/Medicinal products are presented below.

BISCUITS

The stepwise Discriminant Function analysis performed 6 steps. Based on the 8 variables, SPSS DISCRIM produced one Discriminant Function, unstandardized and standardized Discriminant Function Coefficients. The Discriminant Function based on the Predictor variables had an Eigen value of .125 accounting for 100% variance. The Canonical Correlation was .33. With all the functions the Chi-squared (8) = 28.537 significant at .0004 level.

When the Discriminant Function was evaluated at group means, group 2, had smaller function (.34951) while group 1 had larger function (-.35520). Further examination of standardized Discriminant Function Coefficients indicated that variables Compliance, Task, Affiliation orientation were associated with group 2, while Tenure in hostel and Relaxed were associated with group 1.

The results of the loading matrix of pooled-within-groups correlation between the 18 discriminating variables and the Discriminant Function indicated that the primary variables separating the most Likely from the least Likely purchasers of Biscuits were, in the order of magnitude, Compliance (.55) Affiliation (.40) less Tenure in hostel (-.37) Dependence (.32) Extension (.33) and not Luck (-.31).

As seen in the table above, the least Likely purchasers of Biscuits were not Compliant (Mean = 38.48) not Affiliation (M= 15.23), nor Extension (Mean = 15.71) and Dependence (M = 16.85) oriented. But attributing to Luck (M = 2.58) with less Tenure in hostel. Thus the correlational results showed that the most Likely purchasers tended to be characterised as those with high Motivational orientations of getting along with others.

Thus the analysis indicated that the most Likely purchasers tended to be more Compliant, Affiliation, Extension and Dependence oriented.

BODY ACHE REMEDIES

The Discriminant Function based on the 6 Predictor variables had an Eigen value of .07 accounting for 100% variance. The Canonical Correlation was .26. With all the functions the Chi-squared (6) = 16.360 significant at .012 level. When the Discriminant Function was evaluated at group means, group 2 and Group 1 had similar functions (.267).

Further examination of standardized Discriminant Function Coefficients indicated that variables Sex, Sociability and Control were associated with group 1, the least Likely purchasers; while Dependence and Detached were associated with group 2, the most Likely purchasers of Body ache remedies.

The results of the loading matrix of pooled-within-groups correlation between the 18 discriminating variables and the Discriminant Function indicated that the primary variables separating the most Likely purchasers from the least Likely purchasers of Body ache remedies were, in the order of magnitude, not Dependence (-.48) Sex (.47) Sociability (.40) Power and Control (.34) oriented.

The least frequent purchasers of Body ache remedies were Girls (Mean = 1.57) Not Dependency (M= 16.85) oriented. Thus the analysis showed that the most Likely purchasers were Boys, with high Dependency oriented, who were not however, Sociability nor Control or Power oriented. Thus indicating those with a fear of chaos, not able to influence others but who highly depend on others tend to be the more Likely purchasers of Body ache remedies.

Thus, the most frequent purchasers tended to be Boys, who were with high Dependency oriented and not Sociability nor Control or Power oriented.

CHOCOLATES

The Discriminant Function based on the 4 Predictor variables had an Eigen value of .06 accounting for 100% variance. The Canonical Correlation was .24. With all the functions the Chi-squared (4) = 13.88 significant at .007 level. When the Discriminant Function was evaluated at group means, group 2, and group 1 had similar functions.

Further examination of standardized Discriminant Function Coefficients indicated that variables Sex and Achievement were associated with group 2, while Ability and Tenure in hostel were associated with group 1.

The results of the loading matrix of pooled-within-groups correlation between the 18 discriminating variables and the Discriminant Function indicated that the primary variables separating the most Likely purchasers from the least Likely purchasers of Chocolates were, in the order of magnitude, Sex (.67) not Ability (-.45) Achievement (.39) and not Tenure (-.32).

The least Likely purchasers of Chocolates were Boys (Mean = 1.43) Ability (M = 4.93), not Achievement (M= 17.56) with a mean Tenure in the hostel of 3.46 years. Thus the results showed that Girls who attributed success or failure less to Ability, however more Achievement oriented having about 3 years of hostel life tended to be the most Likely purchasers of Chocolates.

Thus, the most Likely purchasers tended to be Girls who were Achievement oriented with a 3.5 years of stay in the hostel but attributed less to Ability.

HEADACHE REMEDIES

The Discriminant Function based on the 6 Predictor variables had an Eigen value of .08 accounting for 100% variance. The Canonical Correlation was .27. With all the functions the Chi-squared (6) = 17.982 significant at .006 level. When the Discriminant Function was evaluated at group means, group 2 and group 1 had similar functions.

Further examination of standardized Discriminant Function Coefficients indicated that variables Sociability (-.78) and Control (-.32) were associated with group 1, while, Compliance (.45), Extension (.42) were associated with group 2.

The results of the loading matrix of pooled-within-groups correlation between the 18 discriminating variables and the discriminant function indicated that the primary variables separating the least Likely from the most Likely purchasers of Headache remedies were, in the order of magnitude, Sociability (-.68) and Control (-.38) oriented.

The least Likely purchasers of Headache remedies were Sociability (Mean = 14.56) and Control (M= 15.80) oriented. Thus the correlational results between the Predictor variables and the Discriminant Function showed that those who were highly Sociability and more Order oriented tended to be the least Likely purchasers.

Thus, the analysis indicated that the least Likely purchasers tended to be more Sociability and more Control oriented.

HEALTH FOOD

The Discriminant Function based on 5 variables had an Eigen value of .06 accounting for 100% variance. The Canonical Correlation was .23. With all the functions the Chi-squared (5) = 12.320 significant at .03 level. When the Discriminant Function was evaluated at group means, group 2, and group 1 had smaller functions.

Further examination of standardized Discriminant Function Coefficients indicated that variables Ability (.49), Relaxed (.40) and Detached (.34) were associated with group 1, while Extension (-.65) and Dependence (-.35) were associated with group 2.

The results of the loading matrix of pooled-within-groups correlation between the 18 discriminating variables and the Discriminant Function indicated that the primary variables separating the least Likely purchasers from the most Likely purchasers of Health food were, in the order of magnitude, not Extension (-.67) Ability (.46) Detached (.38) and not Dependence (-.34).

The least Likely purchasers of Health food were not Extension (Mean = 15.81) Ability (M = 5.11) more Detached (Mean = 36.53) and less Dependency (M = 16.95) oriented. Thus the results showed that the least Likely purchasers of Health food were those who attributed success or failure to Ability and were Detached, but less Dependent and Extension motivations oriented.

Thus, the analysis indicated that the least Likely purchasers tended to be more Detached, and attributed to Ability.

VITAMIN PRODUCTS

The Discriminant Function based on the 6 Predictor variables had an Eigen value of .07 accounting for 100% variance. The Canonical Correlation was .25. With all the functions the Chi-squared (6) = 15.70 significant at .01 level. When the Discriminant Function was evaluated at group means, group 2, and group 1 had smaller functions.

Further examination of standardized Discriminant Function Coefficients indicated that variable Achievement (.60) was associated with group 1, the least Likely purchasers; while Dependence (-.57) and Control(-.34) were associated with group 2, the most Likely purchasers of Vitamin products.

The results of the loading matrix of pooled-within-groups correlation between the 18 discriminating variables and the Discriminant Function indicated that the primary variables separating the least Likely purchasers from the most Likely purchasers of Vitamins were, in the order of magnitude, Achievement (.55), Relaxed (.53) and not Sex (-.38).

The least Likely purchasers of Vitamin products were Boys (Mean = 1.47) with high Achievement (M = 18.31) and highly Relaxed (M = 11.54). Thus the results showed that Boys who were high Achievement oriented, having a high hope of success and with Relaxed personality orientation emerged as the least Likely purchasers of Vitamin products.

Thus, the stepwise Discriminant Function analysis indicated that the least Likely purchasers tended to be Boys with high Achievement motivation oriented and were Relaxed.

RESULTS OF CLASSIFICATION ANALYSES

As mentioned earlier, based on the Discriminant Function Coefficients, Discriminant Scores were computed and eventually the classification of Cases were performed by the Discriminant Function Analyses for each of the six products. The summary of the Total Percent of Cases correctly classified for the Health/Medicinal products are presented in the Table below.

Table 4.3.2.C. Showing the Total Percent of Cases Correctly Classified for the Health/Medicinal Products.

Products	Total Percent of Cases Correctly Classified
Biscuits	62.50
Body ache Remedies	59.58
Chocolates	58.47
Headache Remedies	58.82
Health Food	62.93
Vitamins	63.56

The results of the Classification Analyses for the Health/Medicinal products indicated that the correct classification ranged between 58 to 63 percent. Interestingly, the percentage of correct classification for the Health products were much higher than that of the Medicinal products. The classification analysis for each of the six products are presented and discussed below.

BISCUITS

The classification analysis based on the 8 variables model accounted for an overall 63% of cases correctly classified. Further analysis on classification was performed at each step of the stepwise analysis. At the first step variable Compliance entered and accounted for 59% correct classification. At the second step variable Extension was included and both the variables accounted for 59%. While Hostel, Affiliation, Task were included in the model the correct classification improved to almost 70%. However, the additional variables Relaxed, Dependence reduced the classification process.

BODY ACHE REMEDIES

The classification analysis based on the 6 variables model accounted for an overall 60% of cases correctly classified. Hence, further analysis on classification was performed at each step of the stepwise analysis. At the first step as seen in the table above, variable Dependence was entered into the analysis, accounting for 48% correct classification. At the second step variable Sex was included and both the variables accounted for 58% of correct classification. When variable Sociability was included the correct classification improved to 60% and actually the variable Control included at 4th step decreased the classification output. Thus the first 3 variables could account for 6 variables classification process.

CHOCOLATES

The classification analysis based on 4 variables model accounted for an overall 58% of cases correctly classified. Hence, further analysis on classification was performed at each step of the stepwise analysis. At the first step as seen in the table above, variable Sex entered accounting for 58% correct classification. The subsequent steps did not improve or reduce the classification output. Thus only variable Sex alone accounted for the classification output.

HEADACHE REMEDIES

The classification analysis based on 6 variables model accounted for an overall 59% of cases correctly classified. Hence, further analysis on classification was performed at each step of the stepwise analysis. At the first step variable Sociability entered into the analysis, accounting for 57% correct classification. At the second step variable Extension was included and both the variables accounted for 58% of correct classification. When variable Compliance was included at the third step, the correct classification improved to 62% which was more than the percent accounted by the 6 variables model, indicating that the subsequent variables were poor discriminants.

HEALTH FOOD

The classification analysis based on 5 variables model accounted for an overall 63% of cases correctly classified. Hence, further analysis on classification was performed at each step of the stepwise analysis. At the first step variable Extension entered and accounted for 55% correct classification.

At the second step variable Ability was included and both the variables accounted for 59% of correct classification. At the third step variable Detached orientation was included accounting for a 61% of correct classification. In fact addition of other two variables reduced the percent of correct classification.

VITAMINS

The classification analysis based on the 6 variables model accounted for an overall 64% of cases correctly classified. Further analysis of classification at each step was not performed for Vitamin products.

SUMMARY

The results of the stepwise Discriminant Function analysis for the Health/Medicinal products indicated that:

1. Females tended to purchase more frequently Chocolates and Vitamins than Boys, while Boys tended to be the more Likely purchaser of Body ache remedies.

The results showed a mixed trend as far as this product group, is concerned. However, the findings indicated that among the product group, possibly the Health oriented products are favoured by Females while the Males tended to be the Likely buyers of Medicinal products. Thus the findings partly confirmed the proposed Hypothesis (H10) that Males would tend to be the more Likely buyers of Health/Medicinal products.

2. Personality variable Compliance orientation was associated with purchase of Biscuit products; while, Detachment Personality oriented individuals tended to be the most Likely purchasers of Body ache Remedies. Thus only two personality variables were associated with the purchase of Health/Medicinal products. The findings confirmed the proposed Hypothesis (H2) that individuals with Detachment Personality would be the most Likely buyers of Health/Medicinal products.

3. Motivational variables Dependency, Extension, Affiliation and Achievement orientations were associated with the Likelihood of purchasing Medicinal/health products, which was contrary to the proposed Hypothesis (H5).

It was assumed that individuals with Control and Power as the dominant Motivational dimensions would be the Likely buyers of these products. However, the results showed that possibly high interpersonal needs such as Affiliation and Extension Motivations tended to positively influence individuals to be the most Likely buyers of at least health related products.

4. Perceptual variables did not emerge as the major discriminating variables for the Likelihood of purchasing any of the Health/Medicinal products.

5. On the other hand individuals who were high on Sociability with Power and Control as the dominant Motivational orientations attributing to Luck and Ability and having a higher Tenure (3 years and above) in the hostel tended to be the least Likely purchasers of Health/Medicinal products.

SOCIALLY-ORIENTED PRODUCTS

A set of six separate Discriminant Function Analyses were performed for the Socially oriented products between the Least Likely and the most Likely purchasers. The summary of the number of cases belonging to Group 1 and Group 2 are presented in the Table shown below.

Table 4.3.2.D. Showing the summary of Cases belonging to the Least and the Most Likely purchasers of Socially oriented products.

Products	Group 1	Group 2
	Least Likely Purchasers	Most Likely Purchasers
Complexion Aids	119	124
Cosmetics	117	130
Fashion Adoption	121	123
Fast Food	120	121
Ready-made Garments	122	123
Soft Drinks	116	126

Discriminant Function analyses were performed for each of the six products between the Least and the Most Likely buyers of Socially oriented products. The results of the preliminary statistics on the data, the Correlation between the Predictor Variables and the Classification outputs are presented and discussed below.

The Test of Univariate Equality of group means showed that variables Sex ($F = 7.692$; $p < .006$) and Power orientation ($F = 5.984$; $p < .02$) had significant mean differences for Complexion Aids. Similarly, group means for variables Power ($F = 13.43$; $p < .000$), Sex ($F = 10.000$; $p < .001$) and Compliance ($F = 4.478$; $p < .03$) had significant differences for product Cosmetics. The group means for Fashion Adoption product, variables Sociability ($F = 6.806$; $p < .01$) and Detachment ($F = 4.955$; $p < .03$) had significant differences. Variable Relaxed had significant mean difference ($F = 5.718$; $p < .01$) for Fast Food product. For product Ready-made Garments none of the predictor variables had a significantly different means between the groups. Finally, for Soft Drink product, variable Sociability ($F = 6.341$; $p < .01$) and Aggression ($F = 5.136$; $p < .02$) had significant mean differences.

The results of U statistics showed that the group means for variable Relaxed for Complexion Aid, Dependence for Cosmetics, Aggression for Fast Food, Sex for Fast Food had equal means between the groups ($\Lambda = 1.0000$). While for products Fashion Adoption and Ready-made Garments none of the Predictor variables had equal means.

The results of Box's M showed that the covariance matrices were the same for all the Socially oriented except Soft Drink product. Thus indicating that the data was normally distributed. (Box's M = 60.561, with an approximate F = 1.2930; p < .09, for Complexion Aids; M = 22.384, with an approximate F = 1.0380; p < .41 for Cosmetics; M = 27.89), with an approximate F = .74790; p < .86 for Fashion Adoption; M = 16.344, with an approximate F = 1.0652; p < .38, for Fast Food; M = 17.306, with an approximate F = 0.80245; p < .72, for Ready-made Garments and finally, M = 19.266, with an approximate F = 1.8918, p < .04, for Soft Drink significant at .0413 level), indicating that possibly the data might have violated the normality.

Having performed the initial statistics on the data to test various hypotheses the Stepwise Discriminant Function Analysis then performed Stepwise variable selection at each step, Discriminant Function Coefficients, Discriminant Function and Classification outputs. The results of the Correlation between the Predictor Variables and the Discriminant Function for each of the six products are presented in the following Table.

Table 4.3.2.E. Showing the Correlations between Predictor variables and the Discriminant Functions, Eigen values, Canonical R, Chi-squared values and their significance levels for the Socially oriented Products.

Predictors	Correlation Between Predictor Variables with Respective Discriminant Functions					
	Compl. Aids	Cosme tics	Fash. Adop.	Fast Food	Ready Garm.	Soft Drink
Compliance	.02	-.37	.22	-.07	-.07	.22
Aggression	-.23	.65	-.13	-.03	-.12	.61
Detachment	.13	-.00	.39	-.31	.29	.13
Sociable	.19	-.06	-.46	-.36	-.44	.67
Relaxed	.00	.16	.08	.58	.13	-.26
Int. Control	.12	-.04	.23	.13	.21	.10
Luck	.24	.10	-.02	.41	-.03	-.13
Task	-.20	.07	.02	-.05	.02	-.12
Ability	.02	-.05	-.05	-.04	-.09	.17
Effort	-.08	-.11	.06	-.24	.07	.09
Achievement	.30	-.05	-.07	.16	-.03	.13
Affiliation	.21	.01	.14	-.03	.37	.12
Power	.47	-.07	.03	-.16	-.05	-.01
Dependence	-.07	.14	-.29	.01	-.15	-.02
Control	.32	-.30	.10	-.02	.07	.06
Extension	-.03	.13	-.11	-.10	-.02	.20
Hostel	.18	-.11	.03	.05	-.04	.33
Sex	-.54	.56	-.27	-.42	.30	-.13
Canonical R	.32	.34	.35	.26	.25	.23
Eigen value	.11	.13	.14	.07	.07	.06
Chi-squared	24.945	29.84	30.19	16.40	15.33	13.46
Df.	(9)	(6)	(8)	(5)	(6)	(4)
Significance	.003	.0000	.0002	.006	.018	.0092

The results as shown in the Table Above, only three products namely, Complexion Aids, Cosmetics and Fashion Adoption had above .30 as the Canonical Correlations explaining about 10% of Variance. Other three products had less than .30 as the Canonical Correlations.

The results of the Eigen values showed that the magnitude of the values were very small, indicating possibly all the Functions were not "good" Functions. However, when the Discriminant Functions were evaluated for their significance, all the Functions were highly significant. The interpretation for each of the product is presented below.

COMPLEXION AIDS

Having done the primary statistical analysis, The analysis performed 9 steps. The discriminant function based on the 9 predictor variables had an Eigen value of .11 accounting for 100% variance. The Canonical Correlation was .32. With all the functions the Chi-squared (9) = 24.945 significant at .003 level. When the discriminant function was evaluated at group means, Group 2, and Group 1 had smaller functions. Further examination of standardized discriminant function coefficients indicated that variables Power (.49), Luck (.41) and Detached (.31) were associated with group 1, the least likely purchasers while Sex (.59), Aggressive (-.39) and Relaxed (-.38) were associated with group 2, the most likely purchasers of Complexion aids.

The results of the loading matrix of pooled-within-groups correlation between the 18 discriminating variables and the discriminant function indicated that primary variables separating the most likely purchasers from the least likely purchasers of Complexion aids were, in the order of magnitude, Sex (-.54) not Power (.47) not Control (.32) and not Achievement (.30).

As seen in the Table above, the most likely purchasers of Complexion aids were Girls (Mean = 1.62) with Power (M= 17.57) low Control (M = 15.67) and Achievement (M= 17.95) orientations. Thus the correlational results showed that Girls with the fear of not able to influence others and having the fear of chaos and fear of failure tended to be the most likely purchasers of complexion aids.

Thus the analysis indicated that the most frequent purchasers tended to be Girls with low Power, Control and Achievement motivational orientations.

COSMETICS

Having done the primary statistical analysis, The stepwise discriminant function analysis performed 6 steps. The discriminant function based on the 6 predictor variables had an Eigen value of .13 accounting for 100% variance. The Canonical Correlation was .34. With all the functions the Chi-squared (6) = 29.84 significant at .000 level. When the discriminant function was evaluated at group means, group 2, and Group 1 had smaller functions. Further examination of standardized discriminant function coefficients indicated that variables Power (-.54) and Compliance (-.39) were associated with group 1, the least likely purchasers; while Sex (.66) Relaxed (.35) and Aggressive (.30) were associated with group 2, the most likely purchasers of Cosmetics.

The results of the loading matrix of pooled-within-groups correlation between the 18 discriminating variables and the discriminating function indicated that the primary variables separating the most likely purchasers from the least likely purchasers of Cosmetics were, in the order of magnitude, not Aggressive (-.65) Sex (.56), not Compliant (-.37) and Control (-.30) orientations.

The most likely purchasers of Cosmetics were Girls (mean = 1.60) with not Power (M= 17.67), less Compliant (M = 41.04) and not Control (M = 15.56) oriented. Thus the correlational results between the predictor variables and the discriminant function showed that Girls with less hope of Influence, less Order and less Compliant oriented tended to be the least likely purchasers of Cosmetics.

Thus, the analysis indicated that the most frequent purchasers tended to be Girls with lesser hope to Influence others, less Order oriented and Compliant.

FASHION ADOPTION

The analysis then performed 8 steps. The discriminant function based on the 8 predictor variables had an Eigen value of .14 accounting for 100% variance. The Canonical Correlation was .35. With all the functions the Chi-squared (8) = 30.196 significant at .0002 level.

When the discriminant function was evaluated at group means, both the groups had smaller functions. Further examination of standardized discriminant function coefficients indicated that variables Detached (.51) Affiliation (.47) and Internal control (.45) were associated with group 1, the least likely purchasers; while Sociable (-.75), Dependence (-.40) and Sex (-.31) were associated with group 2, the most likely purchasers of Fashion Adoption goods.

The results of the loading matrix of pooled-within-groups correlation between the 18 discriminating variables and the discriminant function indicated that the primary variables separating the most likely purchasers from the least likely purchasers were, in the order of magnitude, Sociable (-.46) and not Detached (.39).

As seen in the Table above, the least likely purchasers of Fashion Adoption products were less Sociable (Mean = 14.36) and more Detached (M= 37.15). Thus the correlational results showed that those highly Sociable and less Detached tended to be the most likely purchasers of Fashion oriented products while, more Detached and less Sociable tended to be the least likely purchasers of the same products.

Thus, the analysis indicated that the most frequent purchasers tended to be more Sociable and less Detached.

FAST FOOD

Then, the stepwise discriminant function analysis performed 5 steps. When the discriminant function was evaluated at group means, both the groups had smaller function. Further examination of standardized discriminant function coefficients indicated that variables Relaxed (.63) Luck (.49) and Detached (.40) were associated with group 1, the least likely purchasers; while Sociable (-.40) and Sex (-.35) were associated with group 2, the most likely purchasers of Fast food products.

The results of the loading matrix of pooled-within-groups correlation between the 18 discriminating variables and the discriminant function indicated that the primary variables separating the most likely purchasers from the least likely purchasers of Fast food were, in the order of magnitude, Not Relaxed (.58), Sex (-.42), Not Luck (.41) Sociable (-.36) and not Detached (-.31).

As seen in the Table above, the least likely purchasers of Fast food were Boys (Mean = 1.47), Relaxed (M = 11.31), attributing to Luck (M = 2.38) not Sociable (M = 13.61) and Detached (M = 36.65). Thus the correlational results showed that Boys who were more Relaxed and attributed success or failure to Luck, Detached and not Sociable tended to be the least likely purchasers of Fast food products.

Thus, the analysis indicated that the most likely purchasers tended to be Girls, who were Sociable but less Relaxed and Detached and did not attribute to Luck.

READY-MADE GARMENTS

Having done the primary statistical analysis, the stepwise discriminant function analysis performed 6 steps. Examination of standardized discriminant function coefficients indicated that variables Affiliation (.69), Internal Control (.48) and Detached (.44) were associated with group 1, the least likely purchasers; while Sociable (-.80) and Dependence (.36) were associated with group 2, the most likely purchasers of Ready-made Garments.

The discriminant function based on the 6 predictor variables had an Eigen value of .07 accounting for 100% variance. The Canonical Correlation was .25. With all the functions the Chi-Squared (6) = 15.33; significant at .01 level.

The results of the loading matrix of pooled-within-groups correlation between the 18 discriminating variables and the discriminant function indicated that the primary variables separating the most likely purchasers from the least likely purchasers of Ready-made Garments were, in the order of magnitude, Sociable (-.44), Not Affiliation(.37), and Sex (.30).

As seen in the Table above, the least likely purchasers of Ready-made Garments were Boys (Mean = 1.48), with Affiliation (M=15.13) orientation but not Sociable (M=14.06). Thus the correlational results showed that the most likely purchasers tended to be Girls, who were Sociable but with a fear of being excluded from the group. Thus indicating that highly Sociable tended to go in for Ready-made Garments.

Thus, the analysis indicated that the most likely purchasers tended to be Sociable with more fear of being excluded and generally they were Boys.

SOFT DRINKS

Having done the primary statistical analysis, the stepwise discriminant function analysis performed 4 steps. The discriminant function based on the 4 predictor variables had an Eigen value of .06 accounting for 100% variance. The Canonical Correlation. When the discriminant function was evaluated at group means, group 2, and group 1 had smaller functions. Further examination of standardized discriminant function coefficients indicated that variables Sociable (.66) and Aggressive orientations (.56) were associated with group 2, the most likely purchasers while Relaxed (-.37) was associated with group 1, the least likely purchasers of Soft drinks.

The results of the loading matrix of pooled-within-groups correlation between the 18 discriminating variables and the discriminant function indicated that the primary variables separating the most likely purchasers from the least likely purchasers of Soft drinks were, in the order of magnitude, Sociable (.67), Aggressive (.61) orientations and Tenure in hostel (.33).

As seen in the table above, the most likely purchasers of Soft drinks were Sociable (Mean = 14.36), Aggressive (M = 49.34) oriented and with at least 3.41 (Mean) of Tenure in the hostels. Thus the correlational results showed that highly Sociable and Aggressive having at least 3.41 years stay in the hostel tended to be the most likely purchasers of Soft drinks.

RESULTS OF CLASSIFICATION ANALYSES

As part of the Discriminant Analyses, Classification analyses were also performed. Additional Classification analyses were carried out at each step of the entry of the variable based on the Stepwise variable selection. A summary of the number of Cases Correctly Classified for each of the Six products belonging to the Socially oriented group is presented below in the Table 4.3.2.F.

Table 4.3.2.F. Showing the Percent of Cases Correctly Classified for the Socially oriented Products.

Products	Total Percent of Cases Correctly Classified
Complexion Aids	64.61
Cosmetics	65.59
Fashion Adoption	67.21
Fast Food	61.00
Ready-made Garments	56.33
Soft Drinks	58.92

The results of the Classification Analyses for the Socially oriented products indicated that more or less all the products had above 60% of correct classification, indicating that the Predictor variables that entered into the Stepwise selection could more or less classify cases to this extent. The results for each of the product is presented below.

COMPLEXION AIDS

The classification analysis based on the 9 variables model accounted for an overall 65% of cases correctly classified. Hence, further analysis on classification was performed at each step of the stepwise analysis. At the first step as seen in the table above, variable Sex entered into the analysis, accounting for 59% correct classification. At the second step variable Power was included and both the variables accounted for 60% of correct classification. When variable Luck was included the classification improved to 61%. At the fourth step, when variable Control was included, the model comprising 4 variables reduced the classification output to 59%.

COSMETICS

The classification analysis based on the 6 variables model accounted for an overall 66% of cases correctly classified. Hence, further analysis on classification was performed at each step of the stepwise analysis. At the first step as seen in the table above, variable Power entered into the analysis, accounting for 63% correct classification. At the second step variable Sex was included and both the variables accounted for 64% of correct classification. When variable Compliance was included there was no change in the correct classification and at the fourth step, Relaxed was included and the correct classification was reduced indicating that the 3 variables model tended to classify better.

FASHION ADOPTION

The classification analysis based on the 8 variables model accounted for an overall 67% of cases correctly classified. Hence, further analysis on classification was performed at each step of the stepwise analysis.

At the first step as seen in the table above, variable Sociable entered into the analysis, accounting for 55% correct classification. When Detachment and Internal control were included in the model the correct classification was unchanged. Latter Affiliation was included and the correct classification improved to 64%. The other variables had both increased and reduced the correct classification output.

FAST FOOD

The classification analysis based on the 5 variables model accounted for an overall 61% of cases correctly classified. Hence, further analysis on classification was performed at each step of the stepwise analysis. At the first step, variable Relaxed entered and accounted for 55% of the Cases correctly classified. At the second step variable Luck was included and both the variables accounted for 59% of correct classification. Subsequent inclusion of variables increased and decreased the correct classification percent. But the first two variables model could almost classify as the 5 variables model.

READY-MADE GARMENTS

The classification analysis based on the 6 variables model accounted for an overall 56% of cases correctly classified. Hence, further analysis on classification was performed at each step of the stepwise analysis.

At the first step as seen in the table above, variable Sociable was entered into the analysis, accounting for 53% correct classification. At the second step variable Affiliation was included and both the variables accounted for 58% of correct classification. Subsequent inclusion of variables increased and decreased the correct classification percent. But the first two variables model could almost classify as the 6 variables model.

SOFT DRINKS

The classification analysis based on the discriminant function comprised of 4 variables model accounted for an overall 59% of cases correctly classified. Hence, further analysis on classification was performed at each step of the stepwise analysis. At the first step as seen in the Table above, variable Sociable was entered into the analysis, accounting for 56% correct classification.

At the second step variable Aggressive was included and both the variables accounted for 60% of correct classification. Subsequent inclusion of Dependence and Hostel actually reduced the percent of correct classification.

SUMMARY

The results of the Stepwise Discriminant Function Analysis for the Social oriented products indicated that:

1. Generally Girls tended to be the most Likely purchasers of all the Socially oriented products. Only Ready-made products were more likely brought by Males. The finding thus confirmed the proposed Hypothesis (H10) that comparatively Females would tend to be the most Likely buyers of Socially oriented products.

2. Personality variable Sociable was associated with the Likelihood of purchasing all the Social oriented products except Cosmetics and Fashion Adoption, confirming the Hypothesis (H3) that individuals with high Sociability would tend to be the most Likely buyers of this product group.

3. As far as Soft Drinks products are concerned those who were Sociable yet Aggressive and living in the hostel for more than 3 years (Tenure in hostel), tended to be the most Likely purchasers of these products. The finding thus indicated a different trend that Tenure of the Hostel tended to influence in the Likelihood of purchasing only Soft Drink and not other products belonging to this category. Otherwise the finding was in line with the proposed Hypothesis (H11) that comparatively, individuals with longer Tenure in the Hostel would not be the most Likely buyers of Socially oriented products.

4. Motivational variables Control and Power were associated with the least Likelihood of purchasing the Socially oriented products, which was entirely different from what has been proposed.

5. On the other hand those more Detached, Relaxed and Compliant with more influence and Order (Power and Control) oriented and generally Boys tended to be the least Likely purchasers of Socially-oriented products.

The results of the Discriminant Function Analyses for the Socially oriented product group thus confirmed the following hypotheses H3, H10 and H11.

PERSONAL GROOMING/CARE PRODUCTS

As mentioned earlier, Six separate Stepwise Discriminant Function Analyses were performed for the Personal Grooming/Care Products between the Least Likely and the Most Likely purchasers of these products. A summary of the number of Cases belonging to the Least Likely (Group 1) and the Most Likely (Group 2) purchasers for each of the Six products are shown in Table 4.3.2.G.

Table.4.3.2.G. Showing the Number of Cases belonging to Group 1 and Group 2 for the Personal Grooming/Care Products.

Products	Group 1	Group 2
	Least Likely Purchasers	Most Likely Purchasers
Hair Oil	116	118
Perfume	115	162
Shampoo	123	128
Talcum Powder	115	124
Toilet Soap	126	135
Tooth Paste	113	121

Six separate Stepwise Discriminant Function Analyses were performed between Group 1 and Group 2. The Discriminant Function Analyses initially tested the data for Univariate Equality of the Group Means, Wilk's Lambda or the U Statistic and the normality of the data using Box's M to test the Group Covariance matrices. The results are presented below.

The Test of Univariate Equality of group means for Hair oil product showed that none of the 18 Predictor variable had statistically significant mean difference between the 2 groups. Similarly the group means for Perfume products, Compliance ($F = 6.999$; and Sex ($F = 5.504$; $P < .01$) and Detachment and Extension were significant at .05 level ($F = 3.738$ and 3.644 respectively). The group means for Shampoo product, variable Sex ($F = 37.62$) was significant at .0000 level, while the group means for Talcum powder, Sex ($F = 13.33$) significant at .000 level and Luck ($F = 3.760$) and Extension ($F = 4.261$) were significant at .05 level). The group means for Toilet Soap, Variable Affiliation ($F = 7.711$) was highly significant at .005 level and Sex ($F = 3.655$) significant at .05 level. Finally, for Tooth paste, variables Sex ($F = 12.03$) significant at .0006 level, while Affiliation was significant at .006 level ($F = 7.559$), Control ($F = 6.973$; $P < .008$) and Tenure in hostel and Ability were significant at .05 level.

The U statistics for Hair Oil, Perfume, Talcum Powder, Toilet Soap and Tooth Paste products showed that none of the variables had equal means between the groups. The group means for variable Compliance was equal between the groups for Shampoo product ($\Lambda = 1.0000$).

The results of Box's M showed that the covariance matrices for Hair Oil, Shampoo and to some extent Toilet Soap products were the same for both the groups. (Box's M = 9.7008, with an approximate F = .95206; $p < .4835$; Box's M = 13.604, with an approximate F = 1.3368; $p < .2038$; and Box's M = 39.839, with an approximate F = 1.3821; $p < .0859$) respectively, indicating that the data was normally distributed.

On the other hand the results of Box's M showed that the covariance matrices for Perfume, Talcum Powder and Toilet Soap products were different for both the groups. (Box's M = 72.210, with an approximate F = 1.6043; $p < .0062$; Box's M = 95.505, with an approximate F = 1.6595; $p < .0015$; and Box's M = 62.408, with an approximate F = 2.1575; $p < .0004$) respectively indicating that the data might have violated normality.

Thus the initial statistical analyses on the data indicated that out of the Six products belonging to the Personal Grooming and Care products, the data of three products namely, Perfume, Talcum Powder and Tooth Paste seemed to have violated the normality.

Having performed the initial statistics on the data the Discriminant Function Analyses computed Canonical Discriminant Function, Discriminant Function Coefficients, Eigen Values, Canonical Correlations, Correlations between Discriminating Variables and the Discriminant Function, Chi Squared Values and their Significance levels and the Classification of Cases. The results of the Discriminant Function Analyses and the Classification outputs are presented and discussed below.

Table 4.3.2.H. Showing the Correlations between Predictor Variables and the Respective Discriminant Functions, Eigen values, Canonical R, Chi-squared Values and their Significance Levels for the Personal Grooming/Care Products .

Correlation between Predictor variables with discriminant Function						
Predictors	Hair Oil	Perf ume	Sham poo	Talc Powd.	Toil Soap	Tooth Paste
Compliance	.02	.45	.08	.21	.11	.07
Aggression	-.15	.13	.15	.02	.15	.20
Detachment	-.08	.33	.04	-.19	.26	.01
Sociable	.03	-.27	.16	.26	.27	.18
Relaxed	.28	.01	-.19	-.27	-.25	-.11
Int. Control	-.01	-.04	-.25	-.10	.08	.08
Luck	-.24	-.13	-.02	-.31	-.12	-.26
Task	.19	.01	.04	.09	-.34	-.12
Ability	-.02	.01	-.01	-.05	.11	.32
Effort	.05	.10	-.05	.25	.25	.07
Achievement	-.06	-.11	-.06	-.02	.21	.19
Affiliation	.04	.14	.03	.14	.52	.46
Power	.13	.40	-.06	-.18	.11	.07
Dependence	-.60	.11	-.06	.03	.28	.27
Control	.01	.03	-.13	-.21	.42	.44
Extension	.01	-.16	.15	.33	.00	.01
Hostel	-.02	-.15	-.16	.24	.05	.32
Sex	.49	-.45	.91	.58	-.36	-.57
Canonical R	.19	.36	.39	.38	.31	.37
Eigen value	.04	.14	.18	.17	.11	.16
Chi Sq.	8.24	31.21	41.77	35.66	26.11	33.37
Df.	(4)	(9)	(4)	(10)	(7)	(7)
Significance	.0832	.0003	.0000	.0001	.0005	.0000

The results of the Correlation between the Discriminating Variables and the Discriminant Function for each of the six products belonging to the Personal Grooming/Care products indicated that the Canonical Correlations for other than Hair Oil product were above .30 indicating that the Discriminant Functions had extracted more than 10% of variance. However, the Eigen Values indicated that all the functions were not "good" functions. Similarly, the all the Discriminant Functions other than that of Hair Oil were highly significant beyond .000 level, while, Hair oil product was significant only at .08 level. Thus the results showed that all the Functions were statistically significant explaining at least 10% of the variance though they were not "good" Functions. The results of product is presented and discussed below.

HAIR OIL

The stepwise discriminant Function analysis performed 4 steps. The discriminant Function based on the 4 Predictor variables had an Eigen value of .04 accounting for 100% variance. The Canonical Correlation was .19. With all the functions the Chi-squared (4) = 8.24 significant at .08 level.

When the Discriminant Function was evaluated at group means, both the groups had very small functions. Further examination of standardized Discriminant Function Coefficients indicated that variables Sex and Relaxed were associated with group 1, the least Likely purchasers; while Dependence and Luck were associated with group 2, the most Likely purchasers of Hair oil.

The results of the loading matrix of pooled-within-groups correlation between the 18 discriminating variables and the discriminating Function as shown in Table 4:3.2.H., indicated that the primary variables separating the least Likely purchasers from the most Likely purchasers of Hair oil products were in the order of magnitude, not Dependence ($-.60$) and Sex ($.49$).

As seen in the table above, the most Likely purchasers of Hair oil products were high on Dependence (Mean = 16.99) Motivation oriented and not Males ($M = 1.51$). Thus the correlational results showed that Females with Dependency as the least dominant Motivational pattern tended to be the least Likely purchasers of Hair oil. The results have to be taken with caution as the discriminant Function was not significant.

PERFUME

Having done the primary statistical analysis, the analysis performed 9 steps. The Discriminant Function based on the 9 Predictor variables had an Eigen value of .14 accounting for 100% variance. The Canonical Correlation was .36. With all the functions the Chi-squared (9) = 31.21 significant at .0006 level. When the Discriminant Function was evaluated at group means, group 1 and group 2 had similar Function. Further examination of standardized Discriminant Function Coefficients indicated that variables Sex (-.520, Sociable (-.52) and Achievement (-.34) were associated with group 2, the most Likely purchasers while Compliance (.47), Power (.40) and Affiliation (.39) were associated with group 1, the least Likely purchasers of Perfume.

The results of the loading matrix of pooled-within-groups correlation between the 18 discriminating variables and the discriminant Function indicated that the primary variables separating the least Likely purchasers from the most Likely purchasers of Perfume were, in the order of magnitude, Sex (-.45), Compliance (.45), Power (.40) and Detached (.33) orientations.

The least Likely purchasers of Perfume were Males (Mean = 1.40) highly Compliance (M = 41.11), Power (M = 17.48) and Detachment (37.00) oriented. Thus the correlational results showed that Males with high Compliance but also Detached having high hope of Influencing others tended to be the least Likely purchasers of Perfume.

Thus, the analysis indicated that Females with Temperament of low Compliance and Detachment having low Control and Power Motivational orientations tended to be the most Likely purchasers of Perfume products.

SHAMPOO

The stepwise discriminant Function analysis performed 4 steps. The discriminant Function based on the 4 Predictor variables had an Eigen value of .18 accounting for 100% variance. The Canonical Correlation was .39. With all the functions the Chi-squared (4) = 41.77 significant at .0000 level. When the Discriminant Function was evaluated at group means, group 2, had smaller Function (.41909), while group 1 had larger Function (-.43612); thus indicating that group 1 had been separated from the second group by the discriminant Function.

Further examination of standardized Discriminant Function Coefficients indicated that variables Sex (.95) and Aggressive orientation (.31) were associated with group 2, the most Likely purchasers of Shampoo.

The results of the loading matrix of pooled-within-groups correlation between the 18 discriminating variables and the discriminant Function indicated that the primary variable separating the most Likely purchasers from the least Likely purchasers of Shampoo was Sex(.91). The most Likely purchasers of Shampoo were Females (Mean = 1.69). Thus the correlational results showed that only Sex tended to discriminate the most Likely from the least Likely purchasers of Shampoo.

TALCUM POWDER

Having done the primary statistical analysis, the stepwise analysis performed 10 steps. The Discriminant Function based on the 10 Predictor variables had an Eigen value of .17 accounting for 100% variance. The Canonical Correlation was .38. With all the functions the Chi-squared (10) = 35.66 significant at .0001 level.

When the discriminant Function was evaluated at group means, group 2, had smaller Function (.39088) while group 1 had larger Function (-.42147); thus indicating that group 1 had been maximally separated from the second group by the discriminant Function.

Further examination of standardized Discriminant Function Coefficients indicated that variables Sex (.60) and Tenure in hostel (.43) were associated with group 2, the most Likely purchasers while Luck (-.40) and Relaxed (-.35) were associated with group 1, the least Likely purchasers of Talcum powder.

The results of the loading matrix of pooled-within-groups correlation between the 18 discriminating variables and the discriminant Function indicated that the primary variables separating the most Likely purchasers from the least Likely purchasers of Talcum powder were, in the order of magnitude, Sex (.58), Extension (.33) and Not Luck (-.31).

The most Likely purchasers of Talcum powder were Females (Mean = 1.60) Extension (M= 16.59) oriented and not attributing to Luck (M = 2.12).

Thus the correlational results showed that Females who had higher hope of being relevant to others, going beyond self and at the same time not attributing to Luck for the success or failure tended to be the most Likely purchasers of Talcum powder products.

Thus the stepwise Discriminant Function analysis between the least and the most Likely purchasers of Talcum powder indicated that the most frequent purchasers tended to be Females with high Extension Motivation and did not attribute to Luck.

TOILET SOAP

The stepwise Discriminant Function analysis then performed 7 steps. The discriminant Function based on the 7 Predictor variables had an Eigen value of .11 accounting for 100% variance. The Canonical Correlation was .31. With all the functions the Chi-squared (7) = 26.107 significant at .005 level. When the Discriminant Function was evaluated at group means, group 2, had smaller Function (.316), while group 1 had larger Function (-.338).

Further examination of standardized Discriminant Function Coefficients indicated that variables Affiliation (.58) and Control (.35) were associated with group 2, the most Likely purchasers while Relaxed (-.56) and Sex (-.38) were associated with group 1, the least Likely purchasers of Toilet soap products.

The results of the loading matrix of pooled-within-groups correlation between the 18 discriminating variables and the discriminant Function indicated that the primary variables separating the most Likely purchasers from the least Likely purchasers of Toilet soap products were, in the order of magnitude, Affiliation (.52), Control (.42) Not Sex (-.36) and Not Task (-.34).

The least Likely purchasers of Toilet soap were Males (Mean = 1.43), Not Affiliation (M = 16.38) oriented and not Control (M = 15.84) oriented, but attributed to Task (M = 3.05). Thus the correlational results showed that the most Likely purchasers of Toilet soap products were Females with high hope of being included and order oriented and did not attribute success or failure to Task, indicating those with high interpersonal relations oriented and who were more systematic tended to be the most Likely purchasers.

TOOTH PASTE

Having done the primary statistical analysis, the stepwise discriminant Function analysis performed 7. The Discriminant Function based on the 7 Predictor variables had an Eigen value of .16 accounting for 100% variance. The Canonical Correlation was .37. With all the functions the Chi-squared (7) = 33.373 significant at .0000 level. When the Discriminant Function was evaluated at group means, group 2, had smaller Function (.38158), while group 1 had larger Function (-.40859); thus indicating that group 1 had been maximally separated from the second group by the discriminant Function. Further examination of standardized Discriminant Function Coefficients indicated that variables Sex (-.59) and Relaxed (-.51) were associated with group 1, the least Likely purchasers while Affiliation (.53) was associated with group 2, the most Likely purchasers of Tooth paste.

The results of the loading matrix of pooled-within-groups correlation between the 18 discriminating variables and the discriminant Function indicated that the primary variables separating the most Likely purchasers from the least Likely purchasers of Tooth paste were, in the order of magnitude, not Sex (-.57), Affiliation (.46), Control (.44) Ability and Hostel (.32).

The least Likely purchasers of Tooth paste were Females (Mean = 1.61) not Affiliation (M = 15.39) not Control (M = 15.00) less Tenure in hostel (M = 2.68) and not Ability (M= 4.62). Thus the correlational results showed that Males, who were more Affiliation and Order motivations oriented comparatively with a less Tenure (2.68 years) in the hostel and who did not attribute to Ability for success or failure tended to be the most Likely purchasers of Tooth paste products.

RESULTS OF CLASSIFICATION ANALYSES

As discussed earlier, the Discriminant Function Analyses also produced Classification output based on the Discriminant Function Coefficients. Summary of the Classification output for the six products belonging to the Personal Grooming/Care products are presented below.

Table. 4.3.2.I. Showing the Number of Cases Correctly Classified for the Personal Grooming/Care Products.

Products	Total Percent of Cases Correctly Classified
Hair Oil	56.8
Perfume	67.2
Shampoo	68.5
Talcum Powder	66.9
Toilet Soap	61.3
Tooth Paste	65.4

The results of the Classification output indicated that the Percent of Correct Classification ranged from 56% to 68%. Overall Classification had been above 60%. Only in the case of hair Oil, the Classification has been slightly low. The results of the Classification analyses for each product is presented below.

HAIR OIL

The classification analysis based on the 4 variables model accounted for an overall 57% of cases correctly classified. Hence, further analysis on classification was performed at each step of the stepwise analysis. At the first step as seen in the table above, variable Dependence entered into the analysis, accounting for 56% correct classification. At the second step variable Sex was included and both the variables accounted again accounted for the percent of correct classification, Thus the correct classification based on the variable Dependency more or less accounted and tended to be a better discriminating variable.

PERFUME

The classification analysis based on the 9 variables model accounted for an overall 67% of cases correctly classified. Hence, further analysis on classification was performed at each step of the stepwise analysis. At the first step as seen in the Table above, variable Compliance was entered into the analysis, accounting for 55% correct classification. At the second step variable Sex was included and both the variables accounted for 58% of correct classification. When Sociable was included at the third step the correct classification improved to 61%. Further the 5 variables model including Compliance Sex, Sociable, Power and Affiliation accounted for 66% of the correct classification, which was very close to the the 9 variables model accounting for 67%.

SHAMPOO

The classification analysis based on the 4 variables model accounted for an overall 69% of cases correctly classified. Hence, further analysis on classification was performed at each step of the stepwise analysis. At the first step variable Sex was entered into the analysis, accounting for 68% correct classification.

At the second step variable Aggression was included and both the variables produced the same results, and subsequent inclusion of Internal Control and Sociability did not improve the percent of correct classification, thus indicating that variable Sex alone could account for the 68% of the correct classification.

TALCUM POWDER

The classification analysis based on the Discriminant Function comprised of 10 variables model accounted for an overall 67% of cases correctly classified. Further classification at each step was not performed since all the variables had produced significant changes in Rao's V in the stepwise variable selection analysis.

TOILET SOAP

The classification analysis based on the 7 variables model accounted for an overall 61% of cases correctly classified. Hence, further analysis on classification was performed at each step of the stepwise analysis. At the first step variable Affiliation entered into the analysis, accounting for 57% correct classification. At the second step variable Relaxed was included and both the variables accounted for 60% of the correct classification.

Subsequent entry of variables both increased and decreased the correct classification output, thereby indicating that the first two variables model could more or less correctly classify as good as the 7 variables model.

TOOTH PASTE

The classification analysis based on the Discriminant Function comprised of 7 variables model accounted for an overall 65% of cases correctly classified. Further classification at each step was not done as all the variables had produced significant changes in Rao's V during the stepwise variable selection analysis.

SUMMARY

The results of the Stepwise Discriminant Function Analyses for the Likelihood of Purchase of Personal Grooming and Care products indicated that:

1. Generally Males tended to be more Likely to purchase Hair oil, Toilet Soap and Toothpaste; while, Females tended to be the most Likely purchasers of Perfume, Shampoo and Talcum Powder, thus confirming part of the proposed hypothesis (H1Ø) that on the whole Females would be more Likely to purchase Personal Grooming/Care products than Males.

2. Dependency, Affiliation and Control Motivational patterns were associated with the Likelihood of purchasing Personal Care/Grooming products, whereas it was assumed (4) that individuals with Achievement, Power and Control as the dominant Motivational patterns would be the more Likely buyers of Personal Care/Grooming products. The finding thus, confirmed only a part of the Hypothesis proposed.,

3. Attribution Ability tended to determine to a great extent the most Likely purchasers of Hair Oil, Toilet Soap and Tooth Paste, which was entirely different from what had been proposed (H7). It was assumed that individuals attributing their success or failure more to Luck would be the most Likely buyers of Personal oriented products. The results on the other hand showed that individuals attributing their experiences of success or failure more to Ability tended to be the more Likely purchasers of these products. The results, however, indicated a possible direction that the products namely Toilet Soap and Tooth paste, though might have some relevance to Personal Care, they also could be viewed and seen as having some social relevance. Hence, possibly the findings were not in line with what had been proposed.

3.The Likelihood of purchase of Personal Grooming/Care products tended to be determined to a great extent more by Motivational factors than Personality or Perceptual variables, when the number of variables associated with the purchase of Personal Care/Grooming products.

Thus, the findings confirmed only part of the proposed hypotheses, H4 and H10.

4.4.Ø. CLUSTER ANALYSIS

As discussed in the previous chapter, in statistics, the search for relatively homogeneous groups or objects is called CLUSTER Analysis. The present study has used "Quick Cluster" produced by SPSS because of the large number of cases, which without requiring substantial computer resources, yet producing effective clustering.

In the normal Cluster Analysis, clusters are formed using, 'Agglomerative Hierarchical Clustering' which is the commonly used method. In agglomerative clustering, clusters are formed by grouping cases into bigger and bigger clusters until all cases are members of a single cluster. The 'Divisive Hierarchical Clustering' starts out with all cases grouped into a single cluster and splits clusters until there are as many clusters as there are cases. There are many criteria for deciding which cases or clusters should be combined at each step. All these criteria are based on a matrix of either "distances" or "similarities" between pairs of cases. One of the simplest method is "single linkage" sometimes called nearest 'neighbour'.

Another commonly used method is called 'complete linkage' or the furthest neighbour. Thus, the concepts of distance and similarity are basic to the running of the Cluster Analysis. Since the variables do have different units of measurements, the distance or similarity measures could adversely affect the procedure. Usually "Squared Euclidean distances" are employed, because of the inherent disadvantages of the measures of variables in the Cluster Analysis all the variables are expressed in standardized form. That is all variables have a mean of 0 and a standard deviation of 1., however this is not also the best strategy (Norusis, 1986). The other methods are Average Linkage Between Groups method often called UPGMA (Unweighted Pair Group Method using Arithmetic Average, Ward method, Centroid method, Median method etc.

The present study has employed the 'Quick cluster' procedure for the Cluster Analysis. The algorithm used for determining cluster membership in the Quick Cluster procedure was based on "nearest centroid sorting" using squared Euclidean distance measure, that is a case is assigned to the cluster for which the distance between the case and the centre of the cluster (centroid) is smallest.

Unlike the cluster procedure for smaller files the Quick Cluster for large files produces only one solution for the number of clusters requested. Hence for the Quick Cluster procedure the number of clusters must be specified.

As discussed before the Quick Cluster does not produce a series of solutions corresponding to different numbers of clusters. Hence, a number of cluster analyses were performed from 3 clusters to 7 clusters for both the Criterion sets namely the Frequency of purchase measures and Likelihood of purchase measures. Having examined the cluster solutions, the 3 cluster solutions for both the criterion measures were considered for interpretation. The selection of the 3 cluster solutions were entirely based on the principle of 'more Criterion variables having the greatest drop in within-group sum of squares (minimizing within variance) and having the largest mean square between groups (maximizing between group variance) and having largest multivariate F value'.

Though many methods and producers have been suggested for arriving at the optimal cluster solutions and validation of issues. no conclusive evidence has been proposed so as to arrive at the right number of solutions nor for validations. (Hartigan, 1975 and Willigan 1980, Willigan and Mahajan, 1980; Willigan 1981, Arnold 1979, Shernan and Sheth, 1977). Several authors had suggested the use of Discriminant analysis for cross validation (Field and Schoenfeldt 1975; Nerviano and Gross 1973; Rogers and Linden 1973 and Mc Intyre and Blastifield 1980).

The present study has employed Discriminant analysis for the 3 cluster solution not as a cross validation but as a follow up to the clusters produced by the Quick Cluster Analysis.

The Cluster Analysis for Frequency of purchase and Likelihood of purchase are presented and discussed below.

4.4.1. Cluster Analysis for the Frequency measures of purchase behaviour. The results are presented below.

Table 4.4.1: Showing the mean scores of predictor variables for three groups (clusters) of Frequency of purchase (criterion) F values and their significance levels.

Predictors	Group 1 N=86	Group 2 N=129	Group 3 N=185	F	Sig of F
Compliance	40.31	39.19	40.07	0.853	0.427
Aggression	48.69	47.99	48.39	0.159	0.853
Attachment	36.27	34.98	36.11	1.138	0.322
Sociability	13.45	13.94	14.07	1.410	0.245
Relaxed	11.45	11.08	10.88	0.896	0.409
Int. control	12.67	12.47	12.47	0.186	0.830
Luck	2.37	2.27	2.30	0.073	0.930
Task	3.34	3.43	3.22	0.633	0.532
Ability	5.05	4.87	4.72	0.986	0.374
Effort	5.02	5.36	5.58	1.973	0.141
Achievement	17.71	16.66	16.35	0.122	0.885
Power	17.69	15.95	15.97	3.629	0.027 *
Control	15.65	15.25	15.46	0.550	0.577
Dependence	16.91	17.29	17.23	0.445	0.641
Extension	15.64	15.98	16.32	1.893	0.152
Affiliation	15.47	15.95	15.97	0.797	0.452
Sex	1.28	1.53	1.58	11.75	0.000 #
Hostel	3.63	2.74	3.08	3.349	0.036 *
Criterion					
Biscuits	2.44	3.10	2.76	10.37	0.000
Body-ache	1.79	2.50	1.74	35.57	0.00
Chocolate	2.07	2.85	2.74	16.80	0.00
Complexion Aids	1.31	2.20	1.91	22.95	0.00
Cosmetics	1.34	2.46	2.18	34.94	0.00
Fashion Ad	1.94	2.77	2.99	31.61	0.00
Fast food	2.42	3.44	3.26	5.04	0.00
Hair oil	2.62	3.43	3.21	10.79	0.00
Headache Rem.	1.74	2.98	2.07	43.02	0.00
Health food	2.08	3.95	2.92	66.49	0.00
Perfume	1.22	2.53	2.02	40.65	0.00
Ready-made Garmts.	2.07	2.96	3.09	26.29	0.00
Toilet soap	3.45	4.17	4.50	35.06	0.00
Soft drinks	2.33	3.27	3.44	34.45	0.00
Shampoo	1.71	2.77	3.65	76.50	0.00
Talcum powder	1.66	2.78	3.51	68.79	0.00
Tooth paste	3.55	4.24	4.54	31.93	0.00
Vitamins	1.62	3.35	2.19	64.16	0.00

(# = $p < .000$; and * = $p < .05$ levels and all the Criterion variables $p < .000$ level.)

As shown in table 4.4.1., cluster 1 comprised of 86 individuals, while cluster 2, 129 and the third had 185 individuals respectively. Cluster 1 represented an overall low purchasers of all the 18 products under investigation. Cluster 2 comprised of individuals who tended to purchase more often Hair oil, Health food, Vitamins, Biscuits, Chocolates, Cosmetics, Body ache remedies, Headache remedies, Perfume while the third cluster comprised of individuals who tended to purchase more often Tooth paste, Toilet soap, Shampoo, Talcum powder, Ready-made garments, Fashion adoption, Chocolates, Fast food and less often Body ache remedies.

It could also be seen in terms of F ratios that out of the 18 predictor variables only 3 had a statistical significance among the 3 clusters based on the Frequency of products purchase behaviour; namely Sex ($P < .000$), Power ($P < .036$) and Tenure in Hostel ($P < .03$).

Thus the results of the Cluster Analysis using the Frequency of products purchase indicated that the first cluster comprised of an overall least frequent purchasers of all products were high on Power (influence) Mean = 17.69, ($F = 3.629$; $P < .027$) and had a higher Tenure in the hostel ($M = 3.63$; $F = 3.349$; $P < .036$); and were Boys ($M = 1.28$; $F = 11.756$; $P < .000$)

The second cluster comprising of those individuals who tended to purchase more often Biscuits, Chocolates, Complexion aids, Cosmetics, Fast food, Hair oil, Perfume, Vitamins, Body ache, Head ache remedies and to some extent Soap, Soft drinks, Tooth paste were those with Power as the least dominant motivational pattern ($M = 15.95$) having shorter Tenure in the hostels ($M = 2.74$) and more of Girls ($M = 1.53$).

The third cluster produced comparatively heavy users of Tooth paste, Toilet soap, Talcum powder, Shampoo, Ready-made garments, Fashion adoption and similarly Chocolates, Fast food, were tended to be Girls ($M = 1.58$) with Power as the least dominant motivational pattern.

Thus, generally Males with Power (influence) as the dominant motivational pattern, having the hope of impact, possessing a strong desire to change people to owns thinking and living in the hostels for more than 3 years tended to be very low in purchasing more or less all of the 18 products whether they are Social, Personal or Health oriented. Males with a strong desire to influence others and change others tended to be the least Frequent purchasers of these products.

It could imply that having lived in the hostels for a longer period knowing what each product meant to them they might not be influenced by others but tend to influence others. The findings, thus confirmed the proposed hypothesis (H10), that Males would be the least Frequent purchasers of all the products compared to the Female respondents, and similarly confirming another hypothesis (H5) that, individuals with Power as the least dominant Motivational pattern would tend to purchase most often Health/Medicinal products. Finally, the first cluster also showed and confirmed the hypothesis (H11), that individuals with high Tenure in the Hostel would tend to be very discriminating and seasoned in purchasing of the products hence they would not tend to purchase very frequently most of the products.

The second cluster had indicated that more of Male subjects than Girls with Power as the least dominant motivation having the least Tenure in the hostels, (more or less freshers) tended to be the heavy purchaser of almost all the products covering Health/Medicinal, Personal Care/ Grooming and Socially oriented products.

The second cluster had emerged as opposite to cluster 1. While the cluster 2 comprised of overall heavy purchasers, the cluster 1 represented an overall low purchasers of all products. The only exception being that the first and the second clusters comprised of more of Male respondents than Girl subjects.

Thus the result indicated that Males tended to either buy most of the products or not to buy any of the products, which was entirely determined by the motivational dimensions and the number of years one has stayed in the hostels. With a high influence motive combined with a long association in the hostels would definitely could make one a more seasoned, cautious and calculative purchasers of consumer goods. While the new comers having not much of influence over the others and worried about creating an impact on the others followed their own peer group and might be buying almost all the products that are available in the market till they possibly become more experienced through living in the hostels. Thus confirming proposed hypotheses (H4 and H11).

The third cluster clearly indicated a selective but heavy purchasers of Socially oriented products namely Fashion adoption, Ready-made garments, Soft drinks, Talcum Powder, Soap and Tooth paste. Though originally Toilet soap and Tooth paste were designated as Personal care products in the present study, they possibly could be also viewed as serving interpersonal-relationship oriented appeals thus might have been considered by the sample as Social products. The socially oriented products are heavily purchased by Girls than Boys having a moderate Tenure in the hostels and not having Power as a dominant motive. Thus the third cluster confirmed the proposed hypothesis (H10).

An observation across the other 15 predictor variables among the three clusters indicated that though, they were not significant, the first cluster comprising of overall low purchasers of all the products did not seem to differ across the personality variables, but they were high on Achievement, low on Dependency and Affiliation Motivational dimensions, and attributed their success or failure more to Ability than others.

While the second cluster comprising of overall heavy purchasers of all products tended to be slightly less Detached, high Dependency, Affiliation and Extension Motivation oriented and finally the third cluster denoting the heavy purchasers of Socially oriented tend be slightly high Sociable, less Relaxed, attributing more to Effort and less to Ability.

Thus the findings of the Cluster Analysis using the Frequency of products purchase confirmed the proposed hypotheses that Girl subjects would tend to purchase more Frequently Socially oriented products than Boys, (H10); individuals with long Tenure in the hostels would be the least Frequent purchasers, (H11) and respondents having Control as the least dominant Motivational pattern would tend to purchase most Frequently Health/Medicinal products, (H5).

4.4.2 Cluster Analysis between the Predictor variables and the Criterion measures comprising of Likelihood measures of purchase .The results are presented below.

Table 4.4.2.: Showing the mean scores predictor variables for three likelihood of purchase clusters with F values and significance of F.

	Group 1 n=50	Group 2 n=248	Group 3 n=96	F	Significance of F
Predictors					
Compliance	40.88	39.69	40.08	0.640	0.528
Aggression	48.04	48.36	49.07	0.288	0.750
Detachment	34.66	35.58	37.15	2.348	0.097+
Sociability	14.84	13.82	13.55	3.564	0.029*
Relaxed	10.38	11.25	10.83	1.729	0.179
Int. Control	12.04	12.58	12.53	0.827	0.438
Luck	2.46	2.25	2.26	0.277	0.759
Task	3.56	3.33	3.16	1.013	0.364
Ability	4.48	4.84	5.05	1.652	0.193
Effort	5.40	5.45	5.30	0.153	0.858
Achievement	18.04	17.63	17.57	0.246	0.782
Power	16.36	16.90	17.33	1.523	0.219
Control	14.36	15.35	15.94	3.130	0.045*
Dependence	17.22	17.04	17.55	0.952	0.387
Extension	16.80	15.96	15.90	2.163	0.116
Affiliation	15.62	15.66	16.32	1.561	0.211
Sex	1.72	1.48	1.43	6.131	0.002#
Hostel	3.32	3.13	2.91	0.500	0.607
Criterion					
Biscuits	47.74	31.83	33.27	14.14	0.000
Body ache	32.16	20.39	36.39	33.40	0.000
Chocolates	46.88	28.95	25.26	21.09	0.000
Complexion Aids	42.16	18.82	22.25	44.19	0.000
Cosmetics	50.60	19.98	20.83	71.11	0.000
Fashion Adop.	63.56	28.44	28.54	64.65	0.000
Fast food	57.34	39.22	37.11	17.09	0.000
Hair oil	55.72	31.66	61.77	84.17	0.000
Head ache Rem.	37.02	23.42	47.97	63.49	0.000
Health food	65.96	35.11	62.55	79.04	0.000
Perfume	52.52	20.27	19.01	72.52	0.000
Ready-made Garm	62.40	31.95	28.67	47.49	0.000
Toilet soap	73.08	51.52	71.26	47.54	0.000
Soft drinks	62.82	38.73	35.27	33.15	0.000
Shampoo	70.08	30.83	41.53	66.90	0.000
Talcum powder	68.64	27.71	40.45	80.56	0.000
Tooth paste	75.24	48.49	77.63	86.05	0.000
Vitamins	57.06	27.72	51.59	59.80	0.000

(# = $P < .000$; * = $P < .05$; + = $P < .10$; all the criterion variables had $P = < .000$).

As shown in Table 4.4.2., the first cluster comprised of 50 cases, while the second and third clusters consisted of 248 and 96 cases respectively. The 3 cluster solution had produced a high between - group variance and less within-group variance. Among them Tooth paste ($F=86.05$) Hair oil ($F=84.17$) Talcum powder ($F=80.56$), Perfume ($F=72.52$) Health food ($F=79.04$) Cosmetics ($F=71.11$) had the highest F values, while comparatively Chocolates ($F=21.09$), Fast food ($F=17.09$) and Biscuits ($F=14.14$) had slightly lower F values, however all the F values were significant beyond .000 level.

The first cluster represented as the most Likely purchasers of almost all the 18 products under study except Body ache, Head ache remedies, Hair oil and Tooth paste. Thus the first cluster represented the most Likely purchasers of all Socially oriented products and Personal grooming products and not Medicinal products.

The second cluster represented the least Likely purchasers of all of the 18 products. While the third cluster represented the most Likely purchasers of only Body ache, Head ache, Tooth paste and Hair oil, products.

Thus the third cluster tended to be the most Likely purchasers of Medicinal products with a possible connotation of Medicated Toothpastes or for the Medicinal properties of the Tooth paste and similarly the Hair oil products

For the same 3 cluster solutions when the means were compared for the Predictor set using the F tests, out of the 18 Predictors Sex emerged as a statistically significant factor ($F=6.131$, $P<.002$), while Sociability ($F=3.564$) and Control ($F=3.130$) were found to be significant at .02 and .04 levels respectively. Detachment orientation too had a mean difference among the 3 clusters but the significance was not very high but only at .09 level.

The first cluster comprising of individuals who tended to be the most Likely purchasers of Toilet soap ($M=73.08$), Fashion Adoption (63.56) Health food (65.96) Ready-made garments (62.40), Shampoo (70.08) Soft drinks (62.82) Cosmetics (50.60) Perfume (52.52) Fast food (57.34) Chocolates (46.88) Complexion aids (42.16) were highly Sociable (14.84) and mostly Girls (1.72). They were the low on Detachment Personality (34.66) and with Control (14.36) as the least dominant Motivation oriented.

Though the other predictor variables were not statistically significant, examination of the mean differences indicated that they were more Compliant, not Aggressive, having less of Internal Control, who tended to attribute more to Luck and Task than Ability and Effort.

Thus along with the statistical significance and the general trend that emerged among the proposed hypotheses that highly Sociable and Compliant but less Detached would tend to be the most Likely purchasers of Socially oriented products (H3) and similarly the Girl population would tend to be the most Likely purchasers of Socially oriented products (H10). Thus the first cluster solution to a great extent confirmed two hypotheses namely H3 and H10.

The second cluster solution comprising of the least Likely purchasers of all the products, whether they were Social or Personal or Health oriented, tended to be more of Boys (1.48) having moderate scores on all the Personality, Perceptual and Motivational variables. The second cluster solution confirmed the hypothesis that Boys would be the least Likely purchasers of all products (H10).

The third group comprised of the most Likely purchasers of Medical/Health products were those who were highly Detached (37.15) low on Sociability (13.55) and with a dominant motivational pattern of Control (15.94) and they were generally Boys (1.43). Examination of other means of predictor variables indicated, they were on the higher side of Aggressiveness attributing more to Ability and least to Luck and Task difficulty.

Thus the third solution confirmed the proposed hypothesis that individuals, highly Detached, and low on Sociability would tend to be the most Likely purchasers of Medicinal/Health related products (H2).

Thus the Cluster Analysis using the likelihood measures of product purchase confirmed many of the hypotheses proposed in the present study, including (H12) that the Criterion measure of Likelihood would be a better measure.

4.4.3. Discriminant Analysis for 3 cluster solutions.

Further, the 3 cluster solutions of both the Frequency of purchase and Likelihood of purchase were further analysed using Stepwise Discriminant Functional Analysis. The results are presented and discussed below.

As discussed before the 3 cluster solutions derived for both the Frequency of product purchase and Likelihood of product purchase measures were then used for Discriminant analysis, where the 18 Predictor variables (Personality, Perceptual Motivational and Demographic) were entered into the analysis and the Cluster Membership served as the Dependent variables or 'groups'.

4.4.4. Stepwise Discriminant Function Analysis for the Three Cluster solution based on the Frequency measures of purchase.

A hierarchical discriminant function analysis was performed to assess the prediction of membership in the 3 groups from the Predictor variables and the groups comprised of Group 1. (least purchasers of all products), Group 2 (the most frequent purchasers of Health/Medicinal and Personal grooming products) and finally Group 3 (the heavy purchasers of Socially oriented products).

Of the original 400 cases, all the cases were processed as no datum was found missing for any case. Examination of pooled within-group correlation matrix indicated the correlation coefficients were within range and not large (the largest correlation coefficient was -.46 for Luck and Effort, which was expected). The stepwise discriminant analysis using, Rao's V as the selection rule having a minimum tolerance level .001, minimum F to enter 1.000 and maximum F to remove 1.000, was performed with the help of SPSS - DISCRIMINANT.

The stepwise discriminant function analysis produced 6 steps meeting the requirements specified for maximizing Rao's V. The summary of the analysis is presented below in Table 4.4.4.1.

Table.4.4.4.1. Showing the step, action taken (entered/removed), Change in Rao's V and their significance levels.

Step	Entered/Removed	Change in V	Sig.
1	Sex	23.512	.0000
2	Power	7.948	.0188
3	Sociability	5.366	.0683
4	Hostel	4.236	.1203
5	Effort	4.025	.1336
6	Detachment	2.671	.2630

As seen in Table 4.4.4.1., the following variables were included at each subsequent steps, Sex, Power, Sociability, Tenure in Hostel, Effort and Detached. Of the 6 variables entered into the analysis Sex had produced the maximum change in Rao's V (23.51, $P < .0000$), while Power had 7.95 ($P < .01$) and Sociability was significant at 0.06 level and the other three variables did not increase Rao's V so as to be significant.

As mentioned earlier of the 18 variables entered only 6 variables had the minimum F to enter into the stepwise discriminant analysis and of which only Sex and Power variables had produced significant change in Rao's V. Thus the discriminant function was based on the six variables entered into the stepwise analysis. The standardized discriminant function coefficient for 2 function are produced in Table 4.4.3.2.

Table 4.4.4.2: Showing the Standardized Canonical Discriminant Functions Coefficients.

COEFFICIENTS		
Variables	Function 1	Function 2
Detachment	-.1190	.6118
Sociability	.3324	.0833
Effort	.3034	.2339
Power	-.4940	.2669
Hostel	-.2528	.6139
Sex	.7267	.3886
Canonical Discriminant Function evaluated at group means		
Group	Function 1	Function 2
1	-.60109	.15041
2	.10364	-.19055
3	.20716	.06295

Examinations of the coefficients of the first function further indicated that Sex, Power and Sociability had higher coefficients. Thus Power and Sex tended to contribute in Not purchasing most of the products as evidenced by the correlation between predictor variables with the discriminant function.

Based on the 6 variables that entered into the stepwise analysis, the discriminant analysis produced 2 canonical discriminant functions. The results are presented in Table 4.4.4.3.

Table 4.4.4.3.: Showing the Discriminant Functions, Eigen values, % of variance, Canonical Correlations, Chi-squared and their significance.

Function	Eigen Value	%of variance	Cumulative %	Canonical R
1	.10628	88.35	88.35	.30995
2	.01402	11.65	100%	.11758

After Function	Wilks Lambda	χ^2	Df	Sig
0	0.89143	45.339	12	0.0000
1	0.98617	5.592	5	0.3588

With both the discriminant functions combined χ^2 (12) = 45.339, $P < .0000$. After the removal of the first function, the χ^2 (5) was 5.492, $P < .3588$ which was not significant.

The two discriminant functions accounted for 83.35% and 11.65% variance respectively of the between group variability in discriminating among three groups. First discriminant function maximally separated the overall least frequent purchasers of all the products and heavy purchasers of Socially oriented products. Since only the first discriminant function was statistically significant the loading matrix of correlations between the 18 predictor variables and the first discriminant function is presented in Table 4.4.4.4.

Table: 4.4.4.4. Showing the Correlations between Predictor variables and the first Discriminant Function, Eigen Value, Canonical R, chi-Squared value and its significance level.

Predictor Variables	Correlation between predictor variables with Discriminant function	Univariate F (2,397)	Sig.
Compliance	.05	.8535	.4267
Aggression	-.08	.1588	.8533
Detachment	-.09	1.138	.3216
Sociability	-.25	1.410	.2453
Relaxed	-.10	.8964	.4089
Int. Control	-.00	1.9865	.8302
Luck	-.06	.0729	.9296
Task	-.09	.6329	.5316
Ability	-.18	.9865	.3738
Effort	.28	1.972	.1406
Achievement	-.07	.1222	.8850
Affiliation	.11	.7967	.4515
Power	-.40	3.629	.0274
Dependence	.05	.4452	.6410
Control	-.07	.5499	.5775
Extension	.10	1.893	.1520
Hostel	-.34	3.349	.0361
Sex	.77	11.76	.0000
Canonical R	.31		
Eigen Value	.11		
Chi Sqa (12)	45.339		.0000
% Variance	88.35%		

The loading matrix of correlations between the 18 predictor variables and the first discriminant function, as seen in Table 4.3.3.4, indicated that the first group - the overall least frequent purchasers of all products from the other two groups namely the heavy purchasers of Health/Personal grooming products and Socially oriented products, the primary predictors (using a cut off loading of .30), were Sex (.77) Power (-.40) and Tenure in hostel (-.34). The results thus, indicated that the least frequent purchasers of all the 18 products tended to be Boys (mean = 1.27).

The findings showed that the overall least frequent purchaser of all the products are more Likely to be Males than Females, with Power as the dominant motivation and having a longer Tenure in the hostels; confirming the findings of the Cluster Analysis, using the Frequency of product purchase measures.

Based on the Unstandardized discriminant function coefficients the SPSS had calculated the discriminant score for each case which was eventually used for the classification process. The summary of the classification is presented in Table 4.4.4.5.

Table 4.4.4.5.: Showing the classification results of the actual group membership and the predicted membership.

Total % Correctly Classified : 45.45%					
Actual Group		No.of cases	Predicted Group Memberships		
			1	2	3
Overall non buyers	1	86	No: 54 %62.8	No: 15 %17.4	No. 17 %19.8
Personal Care Products	2	129	No: 39 %30.2	No: 47 %36.5	No: 43 %33.3
Social Products	3	185	No: 60 %32.4	No: 45 %24.3	No: 80 %43.2

The results of the classification has indicated that the overall percent of "grouped" cases correctly classified as just 45.25%. However the group-wise classification indicated that of the first group comprised of the least frequent purchasers of all products 62% of the cases were correctly classified and 38% were wrongly classified while the second group and third group had a correct classification percentage less than 50%. The prediction of membership was based on the assumption that of equal probability.

However, this analysis was based on the cluster membership hence had the prior probabilities been set according to the observations made i.e. instead of the .33 as the prior probability for all the 3 groups, possibly had the prior probabilities been set as .22 for the first group (N=86), .32 and .46 for the second group (N=129) and the third group (N=185) respectively the classification would have greatly improved.

4.4.5. Stepwise Discriminant Function Analysis between the Predictor variables and the Three Groups based on the Likelihood of purchase Cluster memberships.

The stepwise discriminant function analysis was performed using the cluster membership of Likelihood of purchase as Dependent variables. The Perceptual Motivational and Demographic variables served as the Independent variables. The first cluster comprised of individuals who were the most Likely purchasers of all the products except Medicinal/Health related products, i.e. they were most Likely purchasers of both Socially oriented and Personal Care/Grooming products. The second cluster comprised of individuals who were the least Likely purchasers of all the products namely all Personal, Social and Health oriented products.

The third group emerged as a specific group namely the most Likely purchasers of only Medicinal products such as Body ache remedies, Headache remedies and Hair oil.

Of the 400 cases entered into the Cluster Analysis only 394 cases were accepted of which the first cluster comprised of 50 cases, while the second and third comprised of 248 and 96 cases respectively and 6 cases were excluded because of missing value. Examination of pooled within-group correlation matrix indicated that the correlation coefficients were within the range and no large coefficients were detected, indicating that no collinearity among the variables.

The stepwise discriminant function analysis using Rao's V as a selection rule for stepping, having a minimum tolerance level of .001 and the maximum F to remove and the minimum F to enter were kept as 1.000. The analysis was performed with the help of SPSS-DISCRIMINANT.

The stepwise analysis produced 12 step analysis further analysis was not carried as the minimum F and the tolerance levels were not met for the remaining variables. The summary of the variables entered, change in Rao's V and their significance levels are presented in Table 4.4.5.1.

Table 4.4.5.1: Showing the summary of results for the stepwise discriminant analysis, variables entered, Change in Rao's V and their significance levels.

Step	Entered/Removed	Change in V	Sig.
1	Sex	12.26	.002
2	Sociability	8.37	.015
3	Affiliation	6.72	.034
4	Detachment	5.99	.049
5	Power	5.15	.076
6	Control	4.51	.104
7	Hostel	3.88	.14
8	Relaxed	3.83	.14
9	Task	3.04	.21
10	Achievement	2.66	.26
11	Dependence	2.45	.29
12	Effort	2.75	.25

As seen in Table 4.4.5.1, of the 18 Predictor variables only 12 variables entered into the stepwise procedure. Of the 12 variables included, Sex had the maximum increase in Rao's V (12.26) significant at .002 level. While Sociability had a V = 8.37 ($P < .015$), Affiliation ($V = 6.72; P < .034$) and Detachment ($V = 5.99; P < .049$). While Power had a V of 5.15 which was significant at .10 level ($P < .0761$) all the other variables, Control, Tenure in the hostel, Relaxed, Task Difficulty, Achievement, Dependence and Effort did not produce a significant increase in Rao's V.

Examination of the standardized coefficients of the discriminant function revealed that, the first function had larger coefficients for Sociability, Sex, Affiliation, while the second discriminant function had large coefficients for Relaxed and Dependency. The results are shown in Table 4.4.5.2.

Table 4.4.5.2: Showing the Standardized Canonical Discriminant Functions Coefficients and the Canonical Discriminant Function evaluated at Group Means.

Standardized Canonical Discriminant function coefficients		
Variable	Function 1	Function 2
Detached	-.3658	.2363
Sociability	.5806	.1061
Relaxed	-.0343	-.7737
Task	.3418	-.3832
Effort	.1950	-.3675
Achievement	.2701	.1387
Affiliation	-.3817	.4531
Power	-.3482	-.0976
Dependency	-.1575	.4520
Control	-.3611	.1520
Hostel	.2747	.0144
Sex	.5391	.2795
Constant	-81.7190	

Canonical Discriminant Functions evaluated at Group Means		
Group	Function 1	Function 2
1	.7677	-.2839
2	-.0620	-.1128
3	-.2395	.4393

Though the first discriminant function had large coefficients for variables Sex and Sociability, other predictor variables, namely, Detached, Task difficulty, Affiliation and Control also had large coefficients (above .30). However, the correlation between predictor variables with the first discriminant function produced only Sex, Sociability and Control having larger correlations.

Based on the 12 variables that entered into the stepwise analysis the discriminant analysis produced 2 canonical discriminant function accounting for 100% cumulative percent of variance. The results of the discriminant functions are presented in Table 4.4.5.3.

Table 4.4.5.3: Showing the number of discriminant functions, Eigen values, % of variance, Canonical correlation, Chi-squared and their significance.

Function	Eigen Value	%of Variance	Cumulative %	Canonical Correlations
1	0.12982	82.33	82.33	0.33897
2	0.02786	11.67	100.00	0.16464
After function	Wilks Lambda	2 X	Df	Sig
0	0.86110	57.647	24	0.0001
1	0.97289	10.594	11	0.4778

As seen in Table 4.4.5.3. the stepwise discriminant analysis had produced 2 discriminant functions. The first function accounted for 82% of variance, having a canonical correlation of .34 while the second function accounted for only 11.67% of variance with a canonical correlation of .16%. With both the discriminant functions combined $X^2(24) = 57.64$ which was highly significant ($P < .0001$). After the removal of the first function, the $X^2(11) = 10.594$ and was not statistically significant ($P < .4778$). Hence the interpretation was done only for the first function.

The first group was maximally separated from the other two groups. While the second function had maximally separated the 3rd group namely the most Likely purchasers of only the Medicinal products from the most Likely purchasers of all the other products (group 1) and the least Likely purchasers of all products (group 3).

Since only the first discriminant function was statistically significant $X^2 = 57.647$; $P < .0001$, only the first discriminant function was interpreted. Hence, the loading matrix of correlation between the 18 predictor variables and the first discriminant function is presented in Table 4.4.5.4.

Table 4.4.5.4: Showing the correlation between predictor variables and the first discriminant function, Eigen value, Canonical R, Chi-Squared value and their significance.

variables	Correlation between predictor variables with Discriminant function	Univariate F (2, 391)	Sig.
Predictors			
Compliance	-.04	.6041	.5278
Aggression	-.01	.2879	.7500
Detachment	-.28	2.348	.0969
Sociability	.36	3.564	.0293
Relaxed	-.09	1.729	.1787
Int.control	.03	.8267	.4383
Luck	-.06	.2766	.7585
Task	.20	1.013	.3642
Ability	-.14	1.652	.1930
Effort	.04	.1531	.8581
Achievement	.09	.2465	.7817
Affiliation	-.19	1.561	.2111
Power	-.24	1.523	.2193
Dependence	-.10	.9521	.3868
Control	-.34	3.130	.0448
Extension	.13	2.163	.1163
Hostel	.14	.5004	.6067
Sex	.46	6.131	.0024
Canonical R	.34		
Eigen value	.13		
χ^2			
X (24)	57.647		.0001
% Variance	82.33%		

The correlation matrix in Table 4.4.5.4 indicated the first discriminant function maximally separating the most Likely purchasers of Social and Personal Care /Grooming products from the least Likely purchasers of all products and the most Likely purchasers of Medicinal products. With a cut off correlation of .30, the predictor variables associated with the most Likely purchasers of Social and Personal grooming products were Sex (.46) Sociability (.36) and Not Control (-.34).

The findings of the stepwise discriminant analysis indicated that the most Likely purchasers of the Social and Personal Grooming products were Girls (mean 1.72) more Sociability (M=14.84) and with Control (M=14.76) as the least dominant motivation. Thus the finding confirmed the earlier Cluster Analysis that Girls would be the most Likely purchasers of Socially oriented and Personal Grooming products and they also tended to be more Social and not with high hope of Order oriented.

Though the second discriminant function was not statistically significant, the second function had maximally separated the most Likely purchasers of all products and least Likely purchasers of all products were characterized by the primary predictor variables that they were males, having a high Order (Control) oriented but less Sociability and more Detached. This findings also confirmed the proposed hypothesis that highly Detached and Control oriented would tend to buy more of Medicinal products.

Thus the findings of the discriminant analysis confirmed the results of the Cluster Analysis performed on the Likelihood of purchase variables.

Further, when the cases were classified, the overall % correctly classified dropped to less than fifty percent (41.88%). The result are shown in Table 4.3.5.5.

Table.4.4.5.5. Showing the summary of classification output of actual and predicted group membership.

Total % correctly Classified : 41.88					
Actual Group		No. of cases	Predicted group 1	group 2	Memberships 3
Overall Buyers	1	50	No. 32 % 64%	No. 10 % 20	No. 8 % 16
Non Buyers	2	248	No. 76 % 30.6	No. 80 % 32.3	No. 92 % 37.1
Medicinal/ Health	3	96	No. 23 % 24	No. 20 % 20.8	No. 53 % 55.2

Groupwise examination yielded that the first group- the overall Likely purchasers of all the products, comprising of 50 individuals only 64% were correctly classified while of the most non likely purchasers of all the products only 32% were correctly classified and of the Likely buyers of Medicinal products 55% were correctly classified.

This has to be viewed with caution since the prior probabilities for prediction of group memberships were based on equal probabilities ie. .33. But having used the cluster membership and having known the actual number in each cluster, had the prior probabilities been set accordingly the correct classification possibly would have improved.

4.4.6. CONCLUSION

Two sets of Cluster Analysis were performed namely one set relating to the Frequency of product purchase measures and the second set comprising of Likelihood of product purchase measures. Each set of Cluster Analysis was performed using "Quick Cluster" of SPSS, using Centroid method with squared Euclidean Distance. Each set of Cluster Analysis comprised of performing 3 cluster solution to 7 cluster solutions. Examination of each solutions for maximizing between -group variance and minimizing within-group variance indicated that the 3 cluster solution for both the Frequency measures and Likelihood measures had the highest between-group variance and least within-group variance, thereby having highest F values. Hence, only the 3 cluster solutions were presented and discussed.

Using the Frequency measures, the Cluster Analysis indicated that Girls having a moderate Tenure (3 years) in the hostel with least Power oriented motivation (less impacting influence over others) tended to be the frequent purchasers of Socially oriented products, thus confirming the proposed hypothesis 10.

While the Cluster Analysis using the Likelihood of purchase measures indicated that:

1. Girls with least Control oriented motivation but highly Sociability and least Detached would be the most Likely purchasers of all Social and Personal Grooming oriented products thus confirming two hypotheses, H4 and H10.

2. The results further indicated that those with high Detachment and least Sociability and high Control oriented and generally Boys would be the most Likely purchasers of Medicinal/Health products thus confirming the proposed hypotheses H2.

Thus examining the results of both the Cluster Analysis indicated that the Likelihood of product purchase measures tended to be a better criterion measure than just the Frequency of purchase measures when the attempt is made to quantify purchase behaviour, thus confirming the hypothesis H12.

The Three Cluster solutions were entered into the Stepwise discriminant Function Analysis for both the Frequency and the Likelihood measures of purchase. The three Cluster memberships served as the dependent variables, while the predictor set served as the independent variables.

The discriminant analysis further confirmed the results indicated by the Cluster Analysis as discussed and presented earlier in this section on Canonical Analysis.

4.5.0. SUMMARY

In order to test the various Hypotheses proposed in the study, three separate statistical analyses were carried out independently. The data generated from the respondents were analysed using Canonical Analyses, Stepwise Discriminant Function Analyses and Cluster Analyses. All the three analyses were performed using the SPSS Computer software package.

The results of the Canonical Analyses using the Criterion measure of Frequency of Purchase, indicated that Variable Sex tended to determine the most Frequent purchase of Socially oriented products, thus confirming only one of the proposed hypothesis (H10).

Further Canonical Analyses using three subsets of Personality, Perceptual and Motivational variables showed that individuals with Sociability and Compliance as the dominant Personality variables tended to purchase more often Ready-made Garments (Socially oriented) and Biscuits and Chocolates (Health oriented) products, and they tended not to purchase Frequently Medicinal products such as Body ache or Headache remedies, thus confirming only part of the hypothesis (H3) proposed.

The Canonical analysis between the Motivational subset and the Criterion variables yielded that individuals with Achievement, Affiliation, Dependence and Extension as the dominant Motivational patterns tended to purchase more Frequently Biscuits (Health), Toilet Soap (Personal Care) and not Body ache remedies (Medicinal) products. Though the findings did indicate a certain trend they did not confirm the proposed hypothesis. On the other hand, the Canonical Analysis between the Perceptual subset and the Criterion set showed that no significant relationships emerged between the sets, thus indicating that the Attributional process did not seem to contribute to the purchase of any of the 18 products under study.

The Canonical Analyses between the Predictor set and the Criterion set comprising of Likelihood of purchase indicated that variable Sex tended to determine the most Frequent purchase of Socially oriented products thereby confirming only one (H10) of the 12 proposed hypotheses. Further Canonical Analyses between the three subsets of Predictor variables and the Criterion measure showed that individuals with high Sociability Temperament tended to be the most Likely purchasers of Socially oriented products.

On the other hand individuals who were highly Detached tended to be the most Likely buyers of Headache Remedies, thus the results confirmed two of the Hypotheses (H3 and H2) with regard to the Personality variables. The Canonical Analysis between the subset of Motivational Variables and the Criterion set indicated that individuals with Achievement Affiliation and Power as the dominant Motivational dimensions tended to be the most Likely buyers of Toilet Soap, thus confirming the proposed hypothesis (H7). However, of the six products in the Personal Care/Grooming group, only one product namely Toilet Soap tended to be highly associated with the Predictor set.

Conversely, the findings also indicated that they tended to be the least Likely buyers of Body ache Remedies and Headache Remedies (Medicinal) and certain Socially oriented products such as Complexion Aids and Cosmetics. Attributions tended to be not associated with the purchase of the 18 products which were under study.

Thus, the findings of the Canonical analyses using two separate Criterion measures indicated that among the Predictor set, variable Sex tended to determine both the most Frequent purchase and also the most Likelihood of purchasing the Socially oriented products.

The results also showed that the Attributional process and the Tenure in the Hostels did not emerge as determinants of both most Frequent purchase or the Likelihood of purchasing any of the 18 products that were selected for the present study.

As far as the Hypotheses relating to the Personality variables were concerned, the results of both the Criterion sets showed that variable Sociability tended to determine the most Frequent purchase and also the most Likelihood of buying the Socially oriented products.

However, the analysis using the Likelihood measure confirmed yet one more of the hypothesis (H2) that individuals with more of Detached Personality would be the most Likely buyers of Medicinal products. Similarly, the analysis between the Motivational variables and the Frequency of purchase did not confirm any of the three hypotheses proposed with regard to the Motivational Variables. However, the analysis between the Motivational Variables and the Likelihood of purchase confirmed to some extent hypotheses (H7 and H5).

Thus the Canonical Analyses indicated that comparatively, the Criterion measure using Likelihood measure tended to be a better Criterion variables than the Frequency of purchase measure, thus confirming the proposed hypothesis 12.

The Stepwise Discriminant Function Analyses for the three Product Classifications namely the Personal Care/Grooming, Socially oriented and the Health/Medicinal products using the Frequency of purchase measure as the Criterion variables indicated that none of the proposed hypotheses were confirmed as far as the Frequency of purchasing Personal Care/Grooming products were concerned.

However, the findings showed that Females tended to purchase more often Socially oriented products, thus confirmed hypothesis (H10). Further, the results also showed that individuals with Affiliation as the dominant Motivational patterns tended to purchase most Frequently Socially oriented products thus confirming hypothesis (H6) and also the results confirmed the hypothesis (H3) that individuals with Sociability as the dominant Temperament tended to purchase most often Socially oriented products. Finally, the results of Health/Medicinal products confirmed the proposed hypothesis (H2) that individuals with Temperament of highly Detached tended to be the most Frequent purchasers of Medicinal/Health products.

Similarly the Stepwise Discriminant Function Analyses using the Criterion measure of Likelihood of Purchase for the Three categories of products indicated that Females tended to purchase most often Shampoo, Perfume and Talcum Powder, thus confirming part of the proposed hypothesis (H10). The findings similarly confirmed the hypothesis (H11) that individuals with higher Tenure in the hostels would be the least Likely purchasers of Socially oriented products. The findings however indicated that the Likelihood of buying Soft Drinks was determined by the longer Tenure in the hostel.

Three hypotheses were proposed with regard to the Likelihood of buying Personal Care/Grooming products and the results showed that Personality variables were not at all associated with the likelihood of purchasing Personal Care/Grooming products. Motivational variables Dependence, Affiliation, Control and Extension were associated with the Likelihood of purchasing the above products but this finding was contrary to what had been proposed. Similarly, the Attribution Ability was associated with the Likelihood of purchasing these products which was also contrary to what has been proposed. Thus the findings did not confirm any of the hypotheses with regard to Personality, Perceptual and Motivational variables in predicting the Likelihood of buying the Personal Care/Grooming products.

Three hypotheses were proposed for predicting the Likelihood of purchasing Health/Medicinal products. The results confirmed the hypothesis (H2) that individuals high on Detachment and low on Sociability would be the most Likely buyers of Health/Medicinal products. Similarly, the findings showed that individuals with Affiliation, Achievement, Extension and Dependence tended to be the most Likely buyers of Health products such as Biscuits, Chocolates and Health Food.

Thus the findings did not confirm the hypothesis regarding Motivational variables. The results also indicated that Attributional process ability and Luck were associated with the least Likely purchase of Health/Medicinal products, thus indirectly confirming the hypothesis (H8).

Thus, both the sets of the Stepwise Discriminant Function Analyses using the Criterion measures of Frequency of purchase and the Likelihood of purchase of the three product classifications showed that the Criterion measure using the Likelihood measure tended to confirm more hypotheses and thereby emerging as better Criterion measure purchase behaviour, thus confirming the proposed hypothesis (H11) that the Likelihood measure would be a better Criterion measure than the Frequency of purchase.

Finally the Cluster analyses using the Criterion measure of Frequency of purchase confirmed the hypotheses (H10 and H11) that Females tended to purchase more Frequently Socially oriented and Personal Care/Grooming products, and individuals with less Tenure would tend to purchase more often Personal Care/Grooming and Health/Medicinal products.

The results of Cluster Analysis using the Criterion measure of Frequency of purchase showed that neither Personality nor Attributional process tended to determine the purchase of the products under study. However, the results indicated that individuals with Control as the dominant Motivational patterns tended to be the least Frequent purchasers of almost all the products.

Similarly the Cluster Analysis using the Criterion measure of Likelihood of purchase confirmed the hypothesis (H10) that Females would be the most Likely buyers of both the Personal Care/Grooming and Socially oriented products. The findings did not confirm the proposed hypothesis (H5) but indicated the contrary that individuals with Control as the dominant Motivational pattern would be the most Likely buyers of Medicinal products such as Headache and Body ache Remedies.

The findings also confirmed the hypotheses (H3 and H5) that the individuals with high Sociability Personality orientations would be the most Likely buyers of Socially oriented products and that the individuals with high Detachment oriented Temperament would be the most Likely buyers of Medicinal Products.

Thus the findings of the the Stepwise Discriminant Function Analyses using Frequency of purchase and Likelihood of purchase indicated that of both the Criterion measures the Likelihood measure tended to be a better measure in predicting the purchase of the various products under study, thus confirming the proposed hypothesis (H12) that Likelihood measure would yield more significant results than the Frequency measure.

Thus the results of the three separate analyses indicated that variable Sex tended to be the most crucial variable in determining the Frequency of purchase and also the Likelihood of purchase of both Personal Care/Grooming and Socially oriented products. Further Personality Variable Sociability tended to determine the purchase and the Likelihood of Purchase of Socially oriented products. Personality variable Detachment was associated with purchase of Medicinal products such as Headache and Body ache Remedies.

On the whole, Perceptual variables (Attributions) seemed not to contribute in purchasing the products that were taken in the present study.